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DISPUTATIO PATHOLOGICA

DE

ARTERIÆ CAROTIDIS

ANEURISMATE.

DISPUTATIO PATHOLOGICA

DE

ARTERIÆ CAROTIDIS ANEURISMATE;

QUAM,

ANNUENTE SUMMO NUMINE,

EX AUCTORITATE REVERENDI ADMODUM VIRI,

D. GEORGII BAIRD, SS. T. P.

ACADEMIÆ EDINBURGENÆ PRÆFECTI;

NECNON

AMPLISSIMI SENATUS ACADEMICI CONSENSU, ET NOBILISSIMÆ FACULTATIS MEDICÆ DECRETO;

Pro Gradu Doctoris,

SUMMISQUE IN MEDICINA HONORIBUS AC PRIVILEGIIS,

RITE ET LEGITIME CONSEQUENDIS;

ERUDITORUM EXAMINI SUBJICIT

JACOBUS VOSE,

NOVI EBORACI CIVIS.

Pars affecta sæpissime, imo fere semper ob arterias carotides, collum est; observavi tamen illud in genubus et brachiis.

PAULI BARBETTE. Opera Med. et Chir. Lib. ii. cap. iii.

Prid. Id. Septembris, horâ locoque solitis.

EDINBURGI:

EXCUDEBANT ABERNETHY & WALKER.

1809

SAMUELI BORROWE, M. D.

SUO CARISSIMO AMICO,

VIRO

MAXIMA URBANITATE ET BENEVOLENTIA

PRÆDITO,

QUI PRIMUS MEDENDI SCIENTIA SUAM MENTEM IMBUIT,

ET SUMMA OPE ET BENIGNITATE

JUCUNDA REI MEDICÆ

NOVA STUDIA

REDDIDIT;

HANC DISSERTATIONEM,

ANIMO GRATO ET BENEFICII MEMORI

CONSECRAT

ALUMNUS

AUCTOR.

CAROLO BELL,

CHIRURGO PERITISSIMO,

QUI SE

ANATOME ET RE CHIRURGICA,

EA QUA TANTOPERE ELUCET EXCELLENTIA INSTRUXIT,

ET AMICITIA MAXIMA PROSECUTUS EST;

HOCCE OPUSCULUM,

QUA PAR EST OBSERVANTIA,

DICAT

ALUMNUS

AUCTOR.

ASTLEY COOPER,

SOCIETATIS REGIÆ SOCIO,

ARTIS CHIRURGICÆ PRÆCLARO ORNAMENTO,

PRÆ MAXIMO STUDIO QUO OMNES OCCASIONES ARRIPUIT

SE MEDENDI SCIENTIA LOCUPLETANDI,

ET QUI AMICITIA NUNQUAM OBLIVISCENDA

EXORNAVIT;

HANC DISSERTATIONEM,

SUMMA REVERENTIA,

SACRAT

ALUMNUS

AUCTOR.

NECNON,

JOANNI BELL,

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QUI SECUM BENIGNITATEM MAGNAM COMMUNICAVIT;

HANC DISSERTATIONEM,

SUMMÆ OBSERVANTIÆ

EXIGUUM SED SINCERUM

TESTIMONIUM,

OFFERT ET DEDICAT

AUCTOR.

Presented to Mr Jn Revere for the Boston Athenæum by the Author.

DISPUTATIO PATHOLOGICA

INAUGURALIS

DE

ARTERIÆ CAROTIDIS

ANEURISMATE.

NISI paucis abhinc annis, aneurisma arteriæ carotidis semper in fatum desiit, et malo insanabili fuit habitum. Nondum ars chirurgica operam contulerat ad mortem differendam, aut diras ærumnas hujus morbi inveterascentis leniendas, donec ille præclarus chirurgus ASTLEY COOPER, ea tanta solertia et animi fortitudine quibus enitet, primus omnium audebat, (sententia quorundam medicorum maxime celebrium, cum veterum,

tum etiam hodiernorum strenuissime oppugnante), arte tempestiva adhibita, morti miserum eripere.

Quis sermo, quæ reverentia illum tantum virum rite laudaret, de genere humano optime meritum? Non meis tantulis eget laudibus, quem colunt et admirantur omnes;—columen et ornamentum artis nobilissimæ, et primum decus scholæ omnium principis ad practicam medicinam chirurgicam ediscendam: qui, animo æquo inter *operationes* gravissimas et difficillimas, sibi jure peritiæ conscio, manu firma, notitia lucida et amplissima legum humanum corpus regentium, et summa felicis exitus inde derivata fiducia, arteriam carotidem ligare audebat, et ita, temporis momento, dimidio fere alimento illud viscus privare, quod motum, sensum, imo ipsam vitam cæteris ministrat. Tantus et tam felix conatus apud rei chirurgicæ historiam principem locum meretur; neque parva gloria nostram Britanniam illustravit, præ cæteris gentium hac arte insignem.

Illos præclaros et peritiores medicos, quorum animi magni et generosi pessimum istum effectum, invidiam, dedecus teterrimum humano generi oderunt, invoco et appello, mecum gratias tam debitas illi viro tribuerent, qui rem chirurgicam adeo dignitate adauxit, qui tanto periculo et metu miseros liberavit. Procul absit inhonestus et turpis livor; publicis fruatur honoribus; colant omnes boni, omnes hujus artis salutiferæ cultores eximii.

Huic illustri homini, cujus merita insignia malignæ auræ invidiæ non possunt obscurare; cui ingenium reverentiam, privatæ virtutes amorem omnium conciliârunt, hoc sacro opusculum. Præ sua benevola et liberali in me amicitia; præ multis, in me non rogantem, collatis beneficiis; præ maxima benignitate qua, quantum suæ opis erat, omnes arripuit occasiones me medica scientia provehendi ejus alumnum; libentissimo et gratissimo animo, quantum illi debeo, quanti istas virtutes suas æstimo, confiteor; non quod ullæ grates meæ

eum honorare possunt, sed quod persolvendo onere expedior.

In brevi et regulari historia proferenda aneurismatis arteriæ carotidis communis, et operationis ab Astley Cooper nuper propositæ, et exitu felici peractæ, quidam putent me debere de hujusce morbi tanti momenti natura ea memorare, quæ ex auctoribus diversis, et hodiernis fontibus optimis colligi possunt. Talis equidem introductio hujusmodi tractatui apta mihi semper visa est; et, ut hoc consequerer, sedulo scrutatus sum et veterum et recentiorum opera, quæ in apricum rem proferrent; qui labor tamen minime votis respondit, neque præmio non excidit. Permulti casus, qui anno priore Londini nosocomiis paucis acciderunt, quam sæpe nunc evenit hoc malum, satis demonstrant; et sequens oratio insignis ex Barbette celeberrimi operi bus, quam a communi usu alienam *insigne*

elegi, tametsi parum accurata esset, nihilominus permultarum occasionum uni homini datarum hujus morbi perspiciendi anno millesimo sexcentesimo amplum testimonium præbet. "*Pars affecta sæpissime, imo fere* "*semper ob arterias carotides, collum est ;* "*observari tamen illud in genubus et bra-* "*chiis.*" At lugendum est, auctorem nihil addidisse quod ejus sententiam confirmaret de re tam utili tamque insolita. Quomodo auctorum plerorumque optimorum hac de re silentii adeo miri rationem reddamus? In auctorum veterum Latinorum plurimis, quos alienum foret enumerare, hujus morbi unum exemplum accurate designatum vix reperiendum; quamvis ad casus insolitos colligendos occasiones maximæ datæ, et operum quam plurima volumina ab iisdem conscripta sunt. A gallicis scriptoribus vix aliquid gravis de hac re scriptum est, exemplo utilissimo et notatu dignissimo a Petit memorato excepto, Auctores gallici quos ego scrutatus sum, nulla exempla morbi propositi præbuerunt. Ho-

rum inclytorum chirurgorum tanti labores qui auxerunt et locupletarunt chirurgicorum commentariorum collectanea optima quæ unquam in lucem venerunt, viz. "*Les Mémoires de l'Academie Royale de Chirurgie,*" nil adhuc ad scientiam nostram de hoc morbo augendam contulerunt. Celeberrimus Dessault etiam, inter clarissimos chirurgos qui unquam in Gallia floruerunt, scientiæ chirurgicæ fontibus ipsis quoque fruens, et facultate cognoscendi quodque morbi genus Parisiis, ubi artem exercebat, et ut casus chirurgicos insolitos et utiles recordetur, tractatum periodicum ad hoc ipsum edidit: inter tam multa memoratu digna, omnino hunc morbum, cui sæpe ei occurrendum erat, præteriit,—morbum qui nunc et semper in futurum chirurgi et pathologi attentionem propriam non poterit non vindicare. Italici scriptores clarissimi, inclyto Scarpa excepto, æque tacent: et operum Anglicorum de re proposita sterilitatem credo non opus esse memorare; et exemplo utili quod Joannes Bell celeberrimus pro-

tulit, in opere præclaro de tumoribus, necnon isto imperfecto apud opus cui nomen *London Medical and Surgical Observations* exceptis, nequeo reperire hunc morbum unquam memoriæ proditum. Pathologus illustris Bailey hanc observationem brevem tantum habet: "I once met with an aneurism in each of "the carotid arteries, at the origin of the in-"ternal carotids."

Quomodo igitur, iterum interrogarem, in morbi historia adeo frequentis et tantum discrimen habentis, tanti hujus defectus rationem reddamus? Mihi videtur illud tantum huic causæ attribui posse,—quod eum medici insanabilem et spei prorsus expertem judicarunt. Ut jam memoravi, morbum solum immedicabilem repræsentare noverunt; et chirurgus nil moliens, diram cohortem symptomatum ægrotum tentantium, magnum tumoris incrementum comitantium observare cogebatur, hanc arteriam amplam impedientis, unam ex venis præcipuis cervicis opprimentis, et respirationi deglutitionique obstantis; donec

tandem ærumnis confectus, miser auras hauriat supremas, apoplecticus forsan, vel etiam propter tardam sacci aneurismatici ac integumentorum exulcerationem moriens profluvio sanguinis; vel ex improviso absumptus aut furore agitatus, ubi sanguinis impetus repertinus et vehemens versus cerebrum dirumpit tunicas tumoris arteriosi non renitentes; et æger, totum per corpus flumine sanguineo manante, eripitur. Tales plerumque exitus hunc morbum inexorabilem tamque sæpe chirurgo apparentem, et auxilium præsentissimum requirentem, et clementiam postulantem, habiturum esse necesse erat. Quantum lugeret medicus, pectore misericorde beatus, conspiciens morbum tam funestum, tamque spei expertem; artis impotentiam invitus agnoscere coactus, et solicitus se subducere ærumnis quibus succurrere nequit! Possumusne mirari chirurgum quamprimum oblivisci conari non solum clementiæ nil juvantis, sed etiam morbi ipsius qui suam peritiam eluserat, et in ejus sententia,

summa artis præstantissimæ conamina, cui excolendæ vitam sacrâsset. Animum circa morbum propositum indifferentem, spes frustratæ sibi socium attulerunt. Res necessario ita se habuit apud chirurgos, quibus hoc malum facultas testandi tam sæpe dabatur, et qui tamen ad rem resolvendam tantas vires nunquam applicuerunt, aut in medium protulerunt quæ de hac re in mentem venerant. Morbus, dicerent, sine dubio est lethalis, et ejus symptomata vix levanda; igitur artis nostræ peritissimi attentionem excitare non possunt historiæ morbi immedicabilis lethalis, quæ nihil nisi nostrum testimonium hujus rei notissimæ docerent. Aneurismatis insolitum profecto genus ejus morbi in genere pathologiam quodammodo elucidaret; sed, ut affirmarent, dictu difficile est quantum aneurisma carotidis, præ aliarum arteriarum aneurismate, ad hoc valeret. Hæ mihi videntur esse causæ, cur scriptores adeo indefessi, et qui opera summa casus collegerunt, de hoc tacuerint. Et his perpensis, tam pauca in

chirurgiæ scriptis de carotidis aneurismate invenire, mirari non possumus: nec jure chirurgorum veterum negligentiam reprehendamus; nam quam minime eos accusare de ea corporis humani legum ignorantia, ex qua inter omnes conveniebat hoc malum immedicabile esse, foret ejusdem culpæ, chirurgos omnes interrogare qui antehac floruerunt; tantum intra angusti terminum ævi, Dominus Cooper primus omnium conatus est carotidis aneurisma sanare, et sanationem præstitit.

Cum eos auctores ex quibus nil possit derivari, quod argumentum illustraret, memoravi, nunc consilium est eos nominare, quorum operum mea indagatio felicius evenit. Hoc facere statuo notis generalibus, et exemplis proferendis hujus morbi quorum sunt recordati: quodcunque hæ historiæ mihi suggerant dilato, donec huic parti disputationis finem imposuerim, quam finiam iis prolatis quæ nuper in nosocomiis Londini quibusdam acciderunt, inclytis ibi chirurgis artem exercentibus; et casibus memoratis quos

testati sunt Dominus Cooper artem exercens, necnon exemplo et operatione recentiore a Domino Cline peracta.

Varii casus carotidum tormentis et ferro ictarum, et antiquis et recentioribus chirurgicis militaribus occurrunt; sed adeo obscure descripti, ut nil momenti inde colligatur. Equidem ex carotidis magnitudine, partium ei vicinarum natura, et conditione hominum vulnera talia passorum, (plerumque in pugnæ tumultu, ubi tempestivum non ferretur auxilium), tantum abest, ut talia vulnera in aneurismata dilatentur, ut sine dubio sæpissime ægris præsens exitium attulerint. Casus duo memorantur, ubi carotide *interna* globulo plumbeo e sclopeto emisso vulnerata, ibi aneurisma formatum erat. Unus ex his ab Acrell * memoratus, compressione ad sanationem perductus est. Alter huic similis a Vano Horne, in ejus notis Botalli operi subjectis, *de vulneribus sclopetis*, enunciatur.

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* Chirurgische forfälle, 1. Band. p. 255.

Habenstreit in tomo quinto operis chirurgici Domini B. Bell translationis meminit casum, qui ei occurrebat, ubi carotis interna tumore schirroso exciso vulnerabatur: profluvium sanguinis copiosum quod exinde secutum est, nisi chirurgus animum præsentem habuisset, et arteriæ canalem ligâsset, ægro animam statim extinguisset; operatio bene respondit, et æger multos inde annos vivebat. Quantum inter se discreparent, quod ad vitæ discrimen carotidis internæ aut externæ vulnus, et communis utriusque trunci vulnus, adeo manifestum est, ut non commentarium postularet. Quod ad probabilitatem majorem, vulnus carotidis internæ in aneurisma desiturum esse, dignum est observatu multa ad hoc operam conferre; arteriæ, nempe, sedem profundam, partium ambientium pressuram magis impedientem sanguinis exitum aut diffusionem, &c.: nil dubii est quin effectus etiam vulneris externi amplitudine, et vulneratæ arteriæ majore vel minore parte nudata multum afficeretur, æque ac magnitudine vulneris arte-

riæ ipsius. Aneurisma forte accideret ex vulnere per sclopetum inflicto, in parte quadam sui circuli tunicas arteriosas contundente, et irritabilitatem extinguente, parte mortua postea separata in squamis; sed hujusmodi casum in auctoribus invenire non potui.

In his conatibus temerariis, cum aliquis ad sese necandum novacula aut alio instrumento arteriam carotidem vulneret, aneurisma sæpe occurrere nonnulli putarent; sed hoc non accidere, ex alto silentio de hac re, et talium casuum fine solito infelici, apparet. Suicidam anatomes indoctum, carotidum canalem raro vulnerare satis constat, incisione plerumque juguli in ea parte facta, ubi arteriæ eæ profundiorem situm habent, et musculo mastoideo et larynge teguntur. Vulgo tamen os hyoideum a cartilagine thyroidea penitus sejungitur, ligamentis divisis quæ conjungunt; et rarius equidem, quamvis aliquando, cartilago thyroidea ipsa vulneratur, multis incisionibus laceris factis, quia est difficile in profundum penetrare: sed eruditior aut paratior ad

facinus in se perpetrandum, carotidem patefacit vulnero tanto, ut auxilium, quamvis propinquum, vix morti eriperet *.

Harderius carotidis externæ vulneris recordatur in aneurisma desinentis, ubi aneurisma sanare tumorem incidendo primo conabatur; inter curationem æger hæmorrhagia mortuus est †. Vide Append.

Rumlerius hominis casum memoriæ tradit, cujus carotis sinistra, dum magnum onus tolleret, capite et cervice valde reclinatis, rupta fuit ‡.

Celeberrimus Hallerus § in opusculis pathologicis, carotici aneurismatis exemplum

* Etiamsi hæmorrhagia, compressione, vel ullis aliis modis reprimeretur, parum spei ægrum superstitem fore donec aneurisma formetur; quia in unoquoque vulnere carotidis communis pars vaga plerumque dissecatur; qui casus fortuitus lethalis putatur.

† Harderii in Apiario Observ. Obs. 86.

‡ Walchii Curat. et Consilia, Obs. 81.

§ Halleri Opusc. Pathol. Obs. 4.

prodit, quod, quamvis solita illius præstantissimi pathologi accuratio maxima sit, tamen, quantulum hujus morbi historiam et pathologiam notaverat aut perspexerat, nimis alte ostendit. Vide Append.

In Londini Observationibus et Investigationibus Medicis *, quædam adhuc minus utilia, et magis manca, de carotici aneurismatis casu sunt edita. Vide Append.

Carotici aneurismatis casus spectatissimus, et forsan ornatissime depictus a Petit †, merito celeberrimo memoratur, ubi arteria sponte sua sanescebat; et ægro paulo post moriente, canalis carotidis affectæ ab origine usque ad tumorem aneurismaticum deletus esse inveniebatur, qui situs erat ad divisionem arteriæ. In tractatu de hoc argumento gravi, quo tam pauci casus bene depicti inseri possunt, minima quidem ex parte omittere progressus, terminationis, et dissectionis historiam hujus

* Medical Observations and Inquiries, vol. vi. art. 4.

† Mémoires de l'Acad. des Sciences, An. 1765.

singularis, et ad docendum accommodati casus, valde alienum foret. Vide Append.

Celeberrimus Abernethy * observationes quasdam edidit de carotidem communem vinciendi effectibus, e casus exitu lethali originem ducentes; in quo arteriam ligaverat, quod erat unico auxilio quo miserandus morti eriperetur, quem vacca cornibus petiverat, et qui in Sancti Bartholomeii nosocomium vectus erat, carotide interna et carotidis externæ ramis magnis oblique laceratis, et sanguinem vehementer effundentibus.

Clarissimus Joannes Bell †, cujus nomen mihi semper carissimum erit, in opere *de tumoribus* tam merito æstimato, aneurismatis carotici casum tradidit, quem in hujus morbi historia, propter utilitatem et auctoris facundiam, verbis ejus ipsissimis tradam. Vide Append.

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* Abernethy's Surgical Observations.

† John Bell's Principles of Surgery, vol. iii. part 1.

Professor Scarpa * in ejus utilissimo opere *de aneurismate*, duo maximi momenti exempla memorat; sed auctor doctissimus sententiam dilectam omni testimonia stabiliendi infeliciter nimis studiosus fuit, ut ad utilium rerum pathologicarum varietatem, debitam attentionem daret, quas casus gravissimi tantas opportunitates investigandi præbebant. Vide Append.

Casus proximus aneurismatis carotici, cujus certior factus sum, iste est qui Domini Cooper ingenium, impavidum, et acerrimum, vires omnes impendere primum perduxit, ut carotidem ligando sanaret.

Casum secundum, qui Domino Cooper contigit, et cui exitus felicissimus fuit, per progressum totum, ab operatione usque ad sanationem perfectissimam, mihi videndi felicitas fuit. Igitur, Domino Cooper permittente, notas meas subjiciam, omnibus ab sermone

* Sull' Aneurisma Riflessioni ed Osservazioni Anatomico-Chirurgiche di Antonio Scarpa.

instituto deflectentibus omissis, donec hanc propositi partem absolvero.

In Octobre anni præcedentis mense, Dom. Cooper mihi memoravit quendam amicorum, paucis ante diebus, dum cadaver scrutaretur, carotide utraque aneurisma conspexisse. Dom. Cooper eadem tempestate aneurismata singulis diebus crebriora evasisse se opinari dixit.

Primo Novembre, ægrum in Sancti Georgii nosocomio, utriusque carotidis aneurismate laborantem, mihi videndi occasio fuit; sed hujus casus singula notare negotia me vetuerunt. Aneurismatum majus ovo gallinaceo fere æquale erat; utriusque pulsatio tam valida erat, ut procul perspici posset. Æger ipse gravis annis et infirmus erat, tussi assidua et respiratione difficili affectus, quæ ex diuturna pulmonum affectione originem ducere videbantur, sed sine dubio tumore comprimente laryngem multum augebantur: aortam aneurismate esse imbecillam suspicati sumus. Ægri adversa valetudo, ætas, et morbi per totum

systema arteriosum disseminati, Domini Cooper operationem vetabant.

Paucis mensibus post secundam operationem Domini Cooper, Januario, viz. anni præsentis, æger in Sancti Thomæ nosocomium ferebatur, et celeberrimi Cline curæ committebatur, aneurismate magno carotidis dextræ affectus. Paulo post hujus introitum, Dom. Cline operationem peragebat, sed parum felici exitu. Pauca, quæ de hujus aneurismatis progressu, operatione, et terminatione, ex erudito amico Sancti Thomæ nosocomio versanti in epistola acceperim, sequuntur. Vide Append.

Ea parte sermonis cujus est carotici aneurismatis historiam tradere, et casibus et observationibus, quales optimis ex auctoribus, propria observatione, et aliis fontibus colligere potui, jam absolutis, nunc transeundum est ad eas observationes generales de morbi pathologia quas casus singuli necessario suggerant: diffidentia et solicitudine hoc munus ineo, quia in observationibus præcedentibus omnino ducis expers existo. Etiamsi aneu-

risma caroticum, post Domini Cooper operationes, rei chirurgicæ peritorum attentionem summam concitavit, hæc res tamen, *ut investigatio pathologica utilissima,* in nullo tractatu unquam exculta est. Quod ad hujus morbi indagationem, summus fructus sperandus est ex laboribus arduis, et occasionibus fere innumeris, quæ chirurgis et pathologis hodiernis contingunt morbos observandi. Nil adhuc tamen prolatum est, casibus Petit, Bell et Scarpa exceptis, nisi quod nudum, inutile et mancum sit: et quantulum etiam hujusmodi apparuit, satis constat*. Solatium quoddam tamen in hoc conatu deduco, e statu provecto scientiæ nostræ arteriarum physiologiæ, per experimenta nupera Professoris Thomson et Doctoris Jones, tam magnopere elucidatæ; neque facile erit in observationibus de hac re errare, nisi hypothesi ineptæ aut investigationi inutili indulgeamus. Post ea quæ Joanne Bell et Pro-

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* Vide notam in Append.

fessore Scarpa prolata sunt*, nihil fere amplius dici potest *de generali* aneurismatis *pathologia*: igitur sat erit mihi ad opera pretiosissima eorum duxisse attentionem, qui hujus gravis argumenti rationem lucidam et perspicuam velint. Hic mihi consilium est, carotidis aneurisma tantum tractare, investigare, et exponere, quantum in me sit, vasis hujus sani et morbosi qualitates peculiares, et a legibus tam bene constitutis, quæ, in utroque statu jam memorato, *systematis* arteriosi partes cæteras regunt, non deflectere.

In casu adeo insigni a Petit memorato, in quo ab sede aneurismatis usque ad arcum aortæ, arteriæ canali penitus deleto, natura salutem moliebatur, statim aliquis mirabitur

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* Hi auctores celeberrimi tumoris aneurismatici veram naturam statuendo, licet magnopere inter se discrepent, (Scarpa aneurismatum diversitatem haud ullam admittente), tamen plerumque de aneurismatis pathologia conveniunt, et tantum necesse est opera tanti pretii consulere, ut omne quod scriptum, aut fortasse scribitur in aneurismatis pathologiam generalem statu scientiæ præsenti discamus.

scrutatorem adeo acrem, et chirurgum adeo inclytum, non inde perspexisse, *operationem* peragi posse in hoc morbo *impune* quoad sanguinis idoneum in cerebro circuitum; eo magis, quod bene intellexit tam faustum naturæ opus vix esse sperandum, et fortasse vix iterum eventurum.

Videatur idem pariter dicendum esse, de omnibus chirurgis inclytis, quibus, ex observationum Petit promulgatione usque ad Domini Cooper primam operationem, plurimæ occasiones obvenerunt morbum testandi, ab initio suo usque ad exitum lethalem, et qui forte perlegerant observationes Petit, sed nunquam auxilii spem ex arteria ligata sibimet proposuerant. Accuratius tamen in animis volventes, morbo jam recentiore et casu operationi opportuno, tantum objici posse, cerebrum subito privari tanta sanguinis copia (quicunque affectus foret); hoc vituperium injustum habere ducimur, et intelligere hanc objectionem casus memorati exitu non prorsus tolli: necesse est ut canalis carotidis tardissime deleatur in

exemplo Petit, et sanguinis motus in cerebro magis magisque sensim impediatur, nempe, præ tumore aneurismatico paulatim amplificato; quo satis temporis sic adhibeatur, ut arteriæ cæteræ cerebri tarde dilatentur, et forsitan pro ratione canalis carotidis affectæ diminutionis. Hinc certe jure dici possit, sanguinis defectum in cerebro nequaquam tantum posse, ut incommodum diuturnum aut grave inde fieret. Dom. Cooper equidem, rei scientia magis lucida fretus, et his argumentis contemptis, fiducia summa perhibuit cæteras varias arterias magnas copiam sanguinis satis magnam, ut muneribus propriis necessariisque fungeretur, cerebro daturas esse; et aneurismate adhuc parvo, et canali arteriæ ideo fere magnitudine solita, nulla præparatione prævia carotidem ligabat.

Prima et præcipua res notatu digna quam, historia casuum Domini Cooper, Domini Cline, &c. perlecta, facile observamus, est tumoris aneurismatici mirabilis incrementi tarditas; hoc maxime miramur, vasis magnitudinem,

cordis propinquitatem, et magnum sanguinis impetum versus parietes arteriæ morbidas consequentem, in animo habentes: quum etiam consideremus causas plerasque aneurismatum tardi incrementi in extremitatibus corporis; fasciarum, nempe, validarum pressuram, et ossium vicinorum renixum, carotidis aneurismati non æque adesse; sed hoc minus mirari docemur, et tanquam fere necessarium et immutabile habere, quum carotidis situm proprium et nexus nobiscum revolvamus. Fascia cellulosa densa et valida, cum vena jugulari interna et parte vaga includitur; hæc fascia undique ea circumfundit, et procul dubio incremento aneurismatis multum obstat. Potenti musculo mastoideo, qui arteriæ partem inferiorem semper premit, fere omnino tegitur: concessa arteriæ debilitate ubi magnos ramos emittit, multo majore quam alicubi, et sanguinis impetu ad ejus latera, ibi etiam magis directe spectante, credo, aneurisma caroticum fere semper accidens e regione laryngis partis superioris, jure proponi auferendæ

pressuræ musculi mastoidei perniciem indicare, utpote aneurisma fieri in hac parte patientis. Anatome nos docet arteriam carotidem, etiamsi ex adverso partis superioris laryngis, et sub maxillæ inferioris angulo, magis tegatur musculo mastoideo et laryngis partibus eminentibus, et ab injuriis externis muniatur, tamen compressioni minime obnoxiam esse: spatio triangulari membrana cellulosa laxa impleto jacet, et e partibus circumjacentibus parum suffulcitur. Sed in ratione reddenda causarum, quæ ad aneurismatis carotici incrementum tardum creandum conferunt, maxime insisterem, effectui fibrarum muscularium quæ platysma myoideum efficiunt: hoc, me judice, plus valeret fasciis extremitatum validissimis ad obstandum tumoris aneurismatici dilatationi celeri. Necesse est ut hujus musculi fibræ legi generali, quæ actionem muscularem regit, obedientes, pro ratione incrementi tumoris subjacentis, vires acquirant; et ex incremento et pressura tumoris quem tegunt, prout res postulent, renixum magis

efficacem præbeant. Fasciæ tendinosæ seu aponeuroses, e contrario, etiamsi aneurismatis incrementum reprimendi majorem vim primo habeant, præ sua distentione tamen, et vi postulata, debilitantur et attenuantur: vis earum vitalis est adeo imperfecta, vasa sanguinea adeo exilia, et sanguinis per eas circuitus tam debilis est, ut pressura et pulsatio magni tumoris aneurismatici in poplite vel inguine, arteriarum actionem penitus compescant, et eas brevissime absorberi sinant. Hoc facile intelligitur, et ab iis prompte agnoscetur, quibus occasio fuit arteriarum, quæ naturaliter subjiciuntur fasciis validis, aneurismata scrutandi, et quæ tantopere dilatatæ sunt, ut tegumenta externa perdiderint. Ex his observationibus de platysmatis myoidei proprio effectu, jure statuamus aneurisma caroticum, eo tardiùs et difficilius ampliatum iri, quo validiores sint vires musculorum; et, dilatationem præcipue iis tardiorem fore, qui bajulorum Londinensium more (viribus musculorum cervicis fere adhibitis) onera

ferre solent, quibusque platysma myoideum valde carnosum et rigidum contingit*. Casus jam memorati hoc uti non absimile quodammodo firmant; nam in casibus a Petit, secundo a Cooper, et eo a Cline memoratis, tumor tardissime increvisse invenietur; in quibus omnibus exemplis mares laborârunt, et duo ex his, nempe ultimi, valde carnosi erant. Sed in casu quem curavit Piccinelli, et in quo post mortem Scarpa partem scrutatus est, supra comprehenso, et in exemplo primo Domini Cooper, et isto a Domino Joanne Bell edito, tumor celeriter increvit, fœminisque malum contigit.

Consentaneum est rebus supra memoratis, ut quamvis, secundum Professorem Scarpa,

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* Meus spectatissimus præceptor Carolus Bell, in prælectionibus, valde concinnis et ingeniosis in usum pictorum, speciei fibrosæ et asperæ, quam hujus musculi actio in quibusdam animi affectionibus repræsentat, ubi homo robustior et carnosior est, insistere solebat; et bajulis utpote viris validioribus exemplo hujus rei utebatur.

Vide etiam C. Bell's Anatomy of Expression in Painting, p. 64, 65.

aneurismata omnia sunt ejus generis a nonnullis proprie dicti *aneurismata spuria*, et unicum tegumentum proprium tumoris arteriosi tunica cellulosa est *, quæ istis vitiis, ut credo, non obnoxia est, arteriæ tunicarum cæ-

* Egli è da molti anni in quà che nella Scuola ho avvertito replicatamente i miei uditori, che la storia di questa malattia era ancor incompleta, e difettosa. Quindi uno dei principali oggetti che ho avuto di mira nel trattare questo importantissimo argomento si fu quello di dimostrare l'insussistenza della dottrina che comune=mente si insegna nelle Scuole di Chirurgia intorno alla maniera colla quale si forma l'Aneurisma, e di conseguenza l'erroneità della divisione adottata dagli scrittori di queste materie, d'Aneurisma cioè *vero*, *spurio*, e *misto*, *falso primitivo*, *falso consecutivo*, e simili. Imperciocchè, dopo un numero assai considerevole d'osservazioni istituite ne' cadaveri di quelli che sono periti per motivo d'interno, o esterno Aneurisma, ho conosciuto nel modo il più certo, ed incontrastabile non esservi che una sola maniera, o forma di questa malattia ; quella cioè per soluzione di continuità o rottura delle tonache proprie dell' arteria con effusione di sangue nel tessuto cellulare circomposta all' arteria offesa ; alla quale soluzione di continuità dà occasione ora una ferita, ora una steatomatosa, terrosa degenerazione, ora un' ulcera rodente, ora una crepatura delle tonache proprie dell' arteria, l'intima intendo e la muscolare, senza che vi

terarum rupturam facientibus ; et ideo tunicarum sanitas *comparativa* hic considerari non debeat : tamen, dum poplitis, femoris aut inguinis aneurisma cernimus, admodum mensibus paucis tumens, et neglectum hæmorrhagia ægrum sæpe extinguens : contra in casibus plerisque jam memoratis morbum valde gradatim progredientem observamus, et biennio in casu Domini Cline istam molem tantum capientem, quam alia aneurismata fere sex mensibus attingere solent. Attamen carotis magnitudine superat ullam arteriarum extremitatis inferioris, cordi vicina est, et ab aortæ arcu recta ascendit; et necesse est accipiat sanguinem multo majore impetu quam

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concorra essenzialmente in fare ciò la dilatazione oltre il naturale delle tonache anzidette ; *e che perciò ogni Aneurisma, sia esso interno, o esterno, circonscritto, o diffuso, egl' è sempre fatto per effusione.*

Scarpa. *Prefazione Op. cit.*

Quidam anatomici et physiologi celeberrimi hodierni, inter quos Monroium secundum et Dominum Joannem Bell inclytos nominare sat est, de hac quæstione utillissima quod ad aneurismatis pathologiam a Scarpa dissentiunt.

ulla arteriarum corporis, arteriis proxime ad cor ipsum surgentibus exceptis: hæc res rationem certe meretur, et adducor ut credam eam ad causas quas memoravi jure referri posse.

In casu secundo in quem Dominus Cooper operationem perfecit, duo vel tria signa erant, quæ primo dubia et explanatu difficilia apparent: pulsatio, nempe, tumoris aneurismatici, quamvis, arteria ligata, debilior; gravis dolor capitis, et cerebri motus pulsatilis sensus ante operationem; horum gravium signorum decessio subita quamprimum operatio peracta esset; palpebræ oculi sinistri contractæ, deinde paulatim ad solitum redeuntes quum tumor subsidebat *. Horum primum, nempe, pulsatio tumoris post operationem, contemplationis et conjecturæ multum iis qui ægrum visebant, dum in nosocomio permanserit, præbebat; sed ausim affir-

* Contractio palpebrarum tumori integumenta tendenti, et *illas* ad latus affectum attrahenti deberi videtur.

mare, nullas de hujus rei ratione conjecturas, quas audivi, vel satisfacere, vel ipsi rei consentaneas esse. Quidam equidem æque crediderunt, arteriam satis arcte non fuisse ligatam: alii putârunt, pulsationem ex aliqua arteria trans tumorem currente ortam esse: unicus arteriæ non omnino ligatæ suspicionem insidiose protulit. Primæ opinionis auctores facile se errâsse vidissent, *si tantum considerâssent arteriam inter ligaturas duas fuisse dissecatam.* Sententia secunda, quamvis summa et spectatissima auctoritate nitens, nunquam mihi visa est congruere, aut naturæ peculiari aut vehementiæ pulsationis communicatæ dum tumor premeretur, pulsationis vehementiæ ubi tumor subsidebat gradatim imminutæ, aut solitæ distributioni arteriarum magnarum in has partes. Quod ad ultimam, vix dico *opinionem*, parum ingenuam pertinet; ejus causa nimis apparet ut explicatione digna sit; et nimis absurda est ut commentarium mereatur.

Forsan oratio sequens singularis hujus pul-

sationis manentis meliorem explicationem reddat, saltem unicam quæ mihi videtur rem bene explicare. Tumor ad extremitatem superiorem carotidis communis, et proxime ubi in externam et internam carotidem dividitur, positus erat; verisimile est eum, sua dilatatione harum arteriarum, origines inclusisse. Thyroideæ seu superioris arteriæ laryngeæ origo solita pars carotidis externæ ima est; et ex ipsius carotidis communis parte superiore haud raro oritur; ideoque arteriam thyroideam ex sacco aneurismatico missam esse, concludere mihi videtur haud absurdum: quum arteria thyroidea tum maxime in glandulam thyroideam dispergitur, cum thyroideis inferioribus et suo socio ex adverso communicationibus liberis formatis, sine dubio si circuitus per carotidem ligatura intercluderetur, ex ejus ramulis anastamoticis impetu aucto vim sanguinis majorem acciperet, et, id quod ad rationem majoris est momenti, hunc sanguinem ideo retrogradum acciperet, et in aneurismatis saccum supra carotidis ligatu-

ram eum effunderet. Hujus sanguinis sic effusi in saccum aneurismaticum effectus satis constat; nam impulsus cum omnibus fluidis in eo contentis æque communicatus motum induceret, (secundum *leges hydraulicas,* quæ hic, ubi phænomena vitalia iis semper obstantia absunt, rem satis exponunt,) quamvis vi diminutum, tamen admodum similem pulsationi, antequam carotis fuisset ligata; prout in sacco sanguis in seriem laminarum ad centrum vergentium gradatim concreverat, et sanguinis fluidi in eo contenti quantitas necessario diminuta erat, s nguinis impulsus in tumore paulatim decresceret; donec totus in coagulum verteretur, cum pulsatio necessarie prorsus cessaret. Nulla alia ratio, ut opinor, cur tumoris pulsatio prorsus sedaretur, antequam ipse subsedisset, reddi potest. Hanc pulsationem *secondariam,* ut nominari rite potest, cæterorum ramorum magnorum carotidis externæ ad actionem sciens referre omisi; licet ex aneurismatis sede apparet ulla argumenta quæ

consequentias supra memoratas roborent, ex eorum actione deducta, nullo modo futilia existimari posse : humoris in sacco aneurismatico contenti agitatio, ob sanguinem ex his arteriis in hunc *refluentem*, maxime augeatur, et mole sanguinis congesta, et vi aucta, quam ex *rivi descendentis gravitate* acquireret, scilicet fascialis, et occipitalis arteriarum, &c.

Gravis dolor capitis attentionem proxime meretur : vehemens et pulsatilis erat ; et corpore antrorsum inclinato, vertigo inducebatur. Ex consideratione, hæc signa aneurismatis carotici comites necessarii et constantes viderentur ; et facile conveniunt istis rebus quæ innotescunt, de quorundam mutationum effectu in sanguinis circuitu per cerebrum. Arteriæ sanæ cerebri, hæ autem sunt vertebrales, carotis sana, &c. carotidis aneurismaticæ obstructione tumentes, et vi sanguinis in eas infusi ad motum vehementem excitatæ, hic motus quoque, vi adhuc majore, cum arteriis minutissimis in superficiem

et intra cerebrum communicatus, sine dubio, id organum onerando et excitando, et quandam inflammationem inducendo, dolorum et motus pulsatilis rationem satis redderent. Sed auxilium pervalidum, quod hujus rei gravissimæ investigationes dirigat, habemus, statum nempe venæ jugularis tumori arterioso prementi perpetuo subjectæ. Ad rationem vertiginis effectæ corpore prono reddendam, ubi pressura necessario aucta esset, et sanguinis reditus ex jugulari et aliis capitis et cervicis venis compressis, motu ejus descendente multum impeditus, hujus pressuræ consideratio quoque conferet. Gravior capitis dolor a mentis aut corporis irritatione oriens, præter effectum actionis arteriosæ auctæ directum intra cerebrum, ad molem auctam tumoris aneurismatici, ex carotidis actione vehementi, et jugulari vena magis inde compressa et obstructa, quoque referatur. Quamvis simplex, naturalis, et legibus circuitum sanguinis in cerebro regentibus consentanea, hæc ratiocinatio appareat, rationem reddere

signorum conquiescentium, *ligata arteria carotide,* difficillimum est: confiteor eam me latere, nisi fortasse credere liceat, morbo jam ineunte, arterias vertebrales et carotidem alteram, non eo amplificatas esse, ut *totum* sanguinem, antea fluentem per carotidem affectam, acciperent. Etiamsi concedatur, post arteriam ligatam, arterias sanas validius quam antea micuisse, tamen verisimile est cerebri incitationem et compressionem imminui, *nempe quia arteria ligata minus solito sanguinis accepit.* Neque parvum effectum tribuo venæ jugulari minus compressæ, et regressui sanguinis a cerebro minus impedito, ut primum sanguis arteriosus, arteria ligata, non poterat libere permeare tumorem, et eum valde distendere inter singulas cordis contractiones.

Argumenta jam allata, quæ res abnormes supra memoratas scientiæ pristinæ effectuum circuitus perturbati in cerebri sani munera congruentes faciant, possunt (ut existimare inducor) conclusionibus paucis, casus aneuris-

matis carotici terminatione infelici facile orientibus, cui Cline operationem nuper fecit, multum corroborari et confirmari: cui plenius insistam, quia multas maximi momenti investigationes de hujus morbi pathologia et carotidem ligandi consequentiis comprehendit: sed iterum mihi lugendum, *notas* de hoc casu tam mancas, et minime claras esse. Ex eo, quod de casu Domini Cline jam dictum est, lector recordabitur, tumorem aneurismaticum permagnum incrementum prope duo annos accepisse, pulsationem ejus vehementem, ægrum tussi, respiratione deglutitioneque difficile, capitis dolore et vertigine multum vexatum; et carotide ligata, die proximo delirâsse, et tertio mortuum esse.

Symptomatum omnium accessio velox, quæ vasorum cerebri actionem valde acceleratam tam accurate indicant, jure potest attribui, ut opinor, eventui operationis affecto morbi diuturnitate, tumoris magnitudine, ejus effectu in respirationem consequenti, jugularis venæ compressione, et magis insigniter om-

nium arteriarum sanarum cerebri magna dilatatione, tamdiu et gradatim solitarum magis magisque sanguinis vehere ex circuitus sanguinis per carotidem aneurismaticam impedimento augescente, eo cursu, per quem magna vis sanguinis ad cerebrum missi adhuc ivit, subito et omnino obstructo; et omni sanguine ideo injecto in arterias jam magnopere dilatatas, et capaces ex consuetudine actionum validiorum solitas. Cerebrum hic apte comparetur membro cum ramulis, qui comitantur arteriam aneurismaticam, ampliatis, præ magni canalis quadam obstructione, et tunc sanguinem omnem ad membrum alendum missum subito accipientibus, canali ipso ligato. Quæ solita phænomena sunt notatu digna in casu posteriore? Nonne calor auctus, rubor, intumescentia, et pulsatio, sine controversia indicant vim auctam, qua rami dilatati arteriæ magnæ muneribus functuri, insolita sanguinis mole accepta, contrahuntur, et eum per ramos minimos propellunt? Si liceat hæc inter se comparare, (et quid ve-

taret dictu difficile est), deducenda, ex magna copia sanguinis, ex ejus circuitu libero per cerebrum, et hujus gravibus functionibus, simplicia et ante oculos posita sunt. Cerebrum, ex toto obstructione unius arteriarum præcipuarum, magnam sanguinis privationem subito experitur: effectum, ut jam dixi, esse oportet, ut sana carotis dilatata, et vertebrales violenter agant; et pro earum incremento, contractione valida, et sanguinis ad cerebrum missi aucta quantitate consequentibus, irritationem et ejus organi oppressionem succedere oportet. *Gradationes* forsan variæ essent; et morbi diuturnitate, et effectibus jam dictis in arteriis dilatandis et copia sanguinis per eas fluentis, multum regerentur et mutarentur; forsitan ex lingua tantum alba, pulsu modice accelerato, facie erubescente, et incremento caloris leni, usque ad delirium ferox, et ex effusione, ad stuporem et mortem.

Sciens evitavi insistere, quantum jugularem venam pressam et respirationem inde

impeditam contulisse, necesse est, in casu præsenti, ex tumoris magnitudine, ad omnia symptomata lethalia augenda, et ad fatum properandum: quia inducor ut crederem horum rationem esse satis reddendam, sine illarum causarum valde potentium actione; sed peculiari irritatione arteriarum cerebri genita ex opio dato, et effectibus ejus auctis per exiguas et repetitas portiones adhibitas, in animo habitis, omnia habemus quæcunque *morbum ipsum mox et valde periculosum, et operationem haud dubie mortiferam*, reddere possunt. Quoad sententiæ accurationem, qua hic usus sum, fortasse tantum *dissectione* prorsus firmari potest. Quantum quod ad pathologiæ progressum, hæc occasio amissa in Domini Cline casu sit deploranda, non opus mihi longo sermone exponere: unica occasio est, quæ cerebrum post operationem recentem scrutandi inciderit, ex tempore quo Dominus Cooper pro *carotico aneurismate* operationem perfecit, et ex quo chirurgiæ et pa-

thologiæ hic parti utilissimæ studium medicorum deditum est.

Casus dissectio, in quo Dominus Abernethy, ob carotidis internæ et ramorum magnorum carotidis externæ lacerationem, carotidem communem ligavit, quodammodo, secundum sententiam Domini Abernethy, quasdam opiniones quæ a me hic prolatæ sunt de casus Domini Cline exitu, firmaret. Casus tamen adeo inter se dissimiles in quibusdam rebus maximi momenti mihi videntur, ut ullam inter eos similitudinem vix reperiam. Casus Domini Abernethy est optimum exemplum actionis arteriosæ vehementer auctæ subito evenientis, et delirio, nervorum distensione et morte finitæ. Inflammatio genita omnino est attributa a Domino Abernethy circuitui sanguinis per cerebrum impedito, nulla alia ratione data ad rationem reddendam cur hæc causa talem exitum produceret. Actio arteriarum cerebri haud dubie augeretur, e sententia quam per observationes jam memoratas proposui; sed ex iisdem opinionibus, et e re-

bus quibus nituntur apparet, etiam in casibus ubi arteriæ valde dilatarentur, ubi earum actio validissima esset ante carotidem deletam, nulla talia inflammationis aut irritationis signa evenisse; neque ullum signum, unde judicari possit actionem arteriarum cerebri incitatam esse. In casu equidem Domini Cline, effectus omnino diversos cernimus: ibi cerebrum hujus actionis auctæ pessimis effectibus oppressum est; sed inter hujus casus naturam et omnium aliorum diversitas ex iis quæ dicta sunt satis constat. Porro verisimile est, ob reditum sanguinis obstructum a capite, per respirationem impeditam, et tumorem aneurismaticum venam jugularem prementem, delirium ex aucta actione arteriosa ortum *modificatum* esse, congestione venosa, et statu apoplectico in lethalem effusionem subito inductam desinente: sed res ipsæ, et modus quo narrantur, nulla testimonia præbent ad hujus opinionis veritatem corroborandam. In casu Domini Abernethy, injuriæ rudi et gravi, quam æger sustinuerat,

et ictui violenti quem caput passum erat, multum ascribere volo. *Verum est carotidem esse ligatam;* sed aliis cerebri arteriis adhuc solita magnitudo fuit; tamen cerebrum inflammatum fiebat, et *æger horis triginta moriebatur nervorum distentione.* In casu Domini Cline infelici, *æger post operationem triduum vixit, quamvis multæ causæ valde contulerunt operam, primo, vehemente actione arteriosa ad cerebrum stimulandum, et denique circuitus sanguinis in ejus venis obstructione, ad id opprimendum.* Dominus Abernethy concedit, cerebri aspectum in ægro suo fuisse similem ei in concussione, inflammatione excepta: tamen concussionem ad productionem horum phænomenorum et inflammationis comitantis valuisse, haud suggerit. Repeto, casu Domini Cooper, nullum inflammationis excitatæ esse indicium, ubi *carotis, arteriis cæteris ampliatis, esset ligata:* e contrario, irritationis indicia quæ ægrum ante operationem vexaverant, subito esse sublevata. Satis constat, opinor, Dominum Abernethy,

in casu præsenti, a solitis accuratis inductis in pathologia hic deflexisse, antea conceptis et falsis sententiis, de momento gravi circuitus regularis in cerebro, et de effectu lethali qui ex altera carotidum ligata necessario oriri ei videretur; sed in his sententiis Dominus Abernethy, sine dubio, a plerisque pathologorum et chirurgorum celebrium, et antiquorum et recentiorum firmabatur, donec Dominus Cooper, clare percipiens quam tuto carotis ob ejus aneurisma ligaretur, neque permotus exitu hujus casus lethali, et ratiocinatione speciosa qua in medium proferebatur, arteriam ligavit; primo adversa fortuna, ut jam constitit: nil tamen hinc desperans, sed potius fiducia ejus firmata, operationem iterum fecit, in primo casu qui se ei obtulit; et res tam bene verterunt quam ejus sententia sperare ei dederat.

Ex hac parte tractatus, ultro ducimur reputare de probabili operationis aneurismatis carotici exitu in consuetis ejus exemplis.

Ex eo, quod dictum est, omnia exitui felici, morbo jam recentiore, favere: certe vix aliquid præterea opus esse videretur, ut maxime dubitantes tandem perspicerent hujus operationis maximum pretium, et spem inde derivatam morbum hactenus terribilem et immedicabilem summovendi; tamen invidiose aut forsan inconsiderate affirmatum est a quibusdam chirurgis inclytis, etiam post Domini Cooper casum ultimum et felicem, operationem semper fore ultimum et dubium auxilium, et vix chirurgo perito perficiendam. Quamvis inducor putare, has longe abesse a sententiis veris eorum qui eas ediderunt, tamen multum firmabantur ex recenti infelici casu Domini Cline; qui *a priori* parum excitaverit spei illi chirurgo inclyto operationem felicem fore. Bene notum est in unaquaque fere operatione capitali chirurgiæ, quantum operationis fama attrita sit, si tum adhibeatur, quum nulla vis naturæ aut artis

eam prosperam reddere valeret*. Jam constitit quam diversas expectationes oporteret fuisse originem ducentes a casuum natura diversa sub cura Domini Cooper, et recentis Domini Cline: in priore, tumores parvi erant, et tantum paucos menses extiterant, et arteriæ sanæ cerebri ideo multo minus dilatatæ erant; vena jugularis non tam valde comprimebatur, et respirationis impedimentum, ex trachea compressa, multo minus vexabat.

Ex observationibus præcedentibus, et exempli sub cura Domini Cline exitu, mihi omnino perspicuum videtur, quanto plus spei ex carotide ligata cum aneurisma recens et parvæ molis sit, quam ubi diu permanserit, et ad magnitudinem non exiguam creverit: sa-

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* A me longe absit hac observatione bonam et meritam celebritatem Domini Cline obscurare, quia hanc operationem fecit; mihi optime persuasum est, nullum candidum esse lectorem qui mecum non admirabitur et laudabit Domini Cline conatum, ut homini infelici spem vitæ servandæ unicam præbeat, quamvis contra ejus opinionem et usum.

tis confirmatur, ut credo, ex peculiari motu sanguinis per partes in hoc morbo affectas et vicinas, uniuscujusque diei moram, tumore sic adaugescente, cerebri arteriis sanis dilatatis, vena jugulari compressa et respiratione impedita, operationis exitum secundum vix sperandum facturam esse: a quibusdam creditur rem contrario se habere in corporis extremitatum aneurismatibus, ubi arteriæ conjugæ laterales dilatantur pro ratione motus sanguinis impediti per truncum affectum, ob tumorem paulatim auctum. Ad arteriam citra sedem aneurismatis fausto eventu ligandam, aliquam morbi diuturnitatem et arteriæ molem satis amplam conferre aut necessarias esse existimatur; quæ tamen tumoris aspectu, ossium proximitate, et membri ægri et valetudinis generalis conditione, haud dubie temperantur. Cognitio fere innumerorum itinerum lateralium, quæ natura artificio extruxit mirabili in arteriis, vix hanc sententiam etiam chirurgos inclytos dedocuit; quorum multi adhuc ducunt operationi multo

minus confidendum esse, aneurismate jam recentiore; et eo magis quum æger gravis ætate sit. Quicquid tamen spei aut metus sit, de perfecto sanguinis circuitu per artum affectum restituendo, arteria præcipua ligata antequam satis temporis elapsum fuerit uti *collaterales* dilatentur; nulli metus aut suspiciones hujusmodi, *quod ad partes per carotides alitas*, nunc medicos agitare possunt, de harum partium *incitabilitate et vi vitali conservanda;* qualiscunque sententia aut *fuerit*, aut *est*, de injuria cerebro allata, *utpote mentis ipsius sede*, ex diminuto aliquandiu subsidio solito sanguinis. Maximum periculum, e contrario, cui vix nimis insistere possumus, est, morbo provectiore, repeto, aucta moles sanguinis ad cerebrum missa impetu quo per carotidis sanæ et vertebralium ramos ampliatos circumfertur, illud organum tenerum opprimens.

De manu habili qua opus est ad vasa magna cervicis patefacienda, eorum vagina secta, ad venam jugularem et partem vagam sejungendas, et carotidem ligandam, ni-

mis certus sum timiditatis et perturbationis ignorantium et insciorum in quaque gravi et incerta operatione, ut putarem unquam illis in animos venturum, arteriam magnam tam necessariam ad vitam patefacere, et sine instrumento comprimente. At satis constat, hanc operationem illis bene eruditis chirurgis nunquam terrorem incutere, qui priusquam incipiunt, consulunt et scientiæ anatomes et manus solertiæ maxime confidunt, ex quibus constantia et animus æquus et cautus originem ducunt.

Quæstio, quæ investigationem acrem et æquam proxime meretur, est, quantum periculi, ex ligamenti effectu in eam arteriæ partem, quam amplectitur, pertimescendum sit. In statu sano, uti opinatur Scarpa, eo facilius latera adversa arteriæ cohærebunt, ubi ligamento in mutuum contactum ferantur, quo majore vi vitali arteria fruatur, id est, quo minus a corde distaret, et quo velocior ejus sanguis inde moveatur. Quod ad quæstionem, an tunicæ arteriæ carotidis an arteriarum

aliarum sæpius morbidæ essent, dissectio quotidiana sine dubio docet, dum carotidem vix invenimus *rigidam, in os versam, aut exulceratam*, talem morbidum aspectum sæpissime, imo *provecta ætate* jure dicerem fere semper, iliacæ externæ, femorali, et popliteæ arteriis accidere. Observationes utilissimæ in opere D. Joannis Bell jam citato repertæ *, et sententia præstantissima Profess. Scarpa †, abunde ostendent, quantum status tunicarum arteriæ, ubi ligatur, omnium operationum, ob aneurismata aut arteriarum vulnera, eventum regit et afficit; etiamque quanto frequentiores in arteriis extremitatum inferiorum morbi sunt, quam in arteriis partium aliarum corporis, ubi subsidii causa operatio fieri possit. Nonne mirum videretur, si hi qui strenue arteriam iliacam externam ligandam præcipiunt in *inguinis aneurismate*, ubi Pau-

* Principles of Surgery, vol. 1. p. 221.

† Scarpa, Sull' Aneurisma, &c. p. 53. § 17.

partii ligamentum tumore erigitur, aliquid operationis præ aneurismate carotico saluti aut eventus felicis spei inde derivatæ objicerent? Certe in casibus communibus hæc operatio semper tutior existimetur illa, in qua operatio vere difficilis est, et arteria, e legibus notissimis jam dictis, difficilius sanescit *etiam in statu sano*; cujus tunicæ etiam multo magis morbo obnoxiæ sunt, et in qua ligamentum juxta ipsum tumorem aneurismaticum necessario admovetur, (res quæ valde adversa est, et cui operationis infaustum exitum maxime attribuerem); ut silentio transirem periculum peritonæum lædendi aut inflammandi, et abscessus qui operationi succedunt, in loco ad puris exitum valde incommodo: quod sub musculis latens, et arteriam, citra et ultra ligamenta, a partibus circumjacentibus disjungens, ad metum hæmorrhagiæ secondariæ plurimum confert. Tantummodo necessarium est historiam hujus operationis, quæ a Dominis Abernethy, Freer, Tomlinson et Cooper perfecta est, perlegere, ut inde clarissime perci-

peremus multo majorem salutem et certiorem successum operationis pro *aneurismate carotico.* Nulla caries ossis timenda est, (ut in aneurismate poplitis), nec ulla artuum rigiditas insanabilis; nullus timor gangrænæ partium, ad quas arteria ligata sanguinem mittere solebat; minimum est periculi, hac arteria aliis comparata, hæmorrhagiæ secondariæ ex tunicis arteriosis apud locum ligamenti affectis; et nullus fere metus, ne arteria pure a partibus vicinis separetur; quod vix aut ne vix includi aut colligi potest, ob ægri situm, (cujus caput, ob multas graves causas, etiam in lecto erigi debet), et ob laryngis et musculi mastoidei actionem. Quid igitur metus hæc operatio de carotide facta incutere debet? Hic metus est umbra mera eorum animos tantum obscurans, qui de provido Dei consilio, quod elucet in fabrica corporis humani (operis multiplicis et consummati) rite judicare nequeunt. Si aliquis etiam objiceret mentis injuriam accipientis periculum, cerebro *pabulo privato:* respondeo, *Experimenta*

præstantissima in corpus humanum, ducem certissimum et optimum in quæstionibus tam singularis et gravis momenti, luculentissime confirmâsse nihil exinde timendum. Periculi declarationes ineptæ et illiberales ab iis disseminentur, qui a rebus novis etiamsi scientiæ veræ utilibus abhorrent, præ timore (laude scilicet dignissimo) ne scientiæ humanæ futilitatem doceantur, i. e. ne ad principia ediscenda iterum quasi mittantur. Sed iniquitas et improbum consilium istorum hominum nimis manifesta sunt, ut aliqua ex parte nocerent. Quid igitur, repeto, ex hac operatione timendum, quam mihi persuasissimum est generi humano beneficio maximo futuram esse? respondeo, (et demonstratum esse opinor), minus timendum esse ubi aneurisma caroticum adhuc recens est, et homo alias sanus, quam arteriis artuum inferiorum affectis, et cæteris paribus: hic autem, (et notatu dignissimum est), arteria *iterum iterumque* ab imperitissimis et ignaris nullo omnino discrimine ligata est. Quæcunque objici possunt, e lethali

exitu primæ operationis a Domino Cooper pro aneurismate carotico factæ, ubi saccus suppurans, pharyngem et laryngem premens occidit, satis refelletur, ut credo, historia hujus casus quam cito prolaturus est. Fere omnia de re chirurgica scripta exemplis exitus similis ex aliquibus tumoribus similiter positis abundant: et in aneurismate carotico recente, nullus omnino dubito quin suppuratio *regimine idoneo* fere semper præcaveri possit. De casu sub cura Domini Cline, in quo ostendere conatus sum exitum *antea* esse expectandum, jam satis dictum est. Quis chirurgus arteriam femoralem ob aneurisma poplitis ligaret, ex morbi diuturnitate, tumoris magnitudine, et doloribus vehementibus ægrum vexantibus, cariem articuli genu jam factam esse intelligens? Quis chirurgus, boni eventus spe, arteriam femoralem ob aneurisma magnum ligaret, membro frigido et calloso, pulsu apud tarsum aut dorsum pedis non percipiendo, et cute hic illic passim livida? Quis chirurgus, dummodo sit artis peritus,

ob aneurisma inguinis arteriam iliacam externam ligaret, simul apud thoracem et abdomen pulsationem sentiens, unde pro comperto habuit aneurisma aortæ extitisse? Quis, denique, in aneurismate, ubi tumor permagnæ molis fere biennium extiterat, carotidem iterum ligaret, dum æger vehementi capitis dolore et spirandi et devorandi magna difficultate laborat, et quum actio abnormis vertebralium et carotidis ampliatarum, et vena jugularis assidue compressa, fatum inevitabile misero minitantur?

APPENDIX.

Nunc restat ut ea exempla aneurismatis arteriæ carotidis subjicerem, de quibus in historia jam absoluta dixi. Quia pauca sunt, et gravis momenti, non mihi consilium est sermonem quo narrantur contrahere, aut Latino mutare; facillime enim sententia scriptoris percipitur, propriis verbis edita.

Præ multis causis consilium ante initum reliqui; nempe quædam adjicere *de diagnosi*, et quomodo aneurisma carotidis ab aliis colli tumoribus dignoscatur, qui, e propriis arteriis aut carotide subjacente micantibus, false pro aneurismate hujus arteriæ habeantur. Semel

mihi contigit hunc errorem testari, ubi chirurgus exercitatissimus suæ artis, medicinam faciens apud nosocomium fere amplissimum Londinense, fallebatur. Ancilla eo vecta est bronchocele laborans; tumor amplus erat, maxime lobi sinistri, et obtegebat carotidem ejus lateris; tumor valde *pulsabat*, partim e suis arteriis ampliatis, partim e motu carotidis subjectæ : chirurgus statim aneurisma hujus arteriæ affuisse prædicabat; et expertissimi inter studiosos medicinæ nosocomium frequentantes ita senserunt: donec Dom. Cooper, eo acumine quo tantopere elucet, simulatque viserat ægram, morbi naturam indicabat, *isto sulco, qui lobos glandulæ thyroideæ inter se diducit, inter devorandum observato.*

Dominus Cline apud ejus prælectiones optimas, alumnis exhibet venam jugularem internam dilatatam, arte anatomica præparatam, quam, homine spirante, multi chirurgi putârant esse aneurisma carotidis, propter motum pulsatilem quem tumor ab hac arteria vicina acceperat. Diagnosis tamen nimis manifesta

est in tali casu ut acrior scrutator fallatur; hic enim tumor sanguine superne descendente impletur; in hoc aneurismate *spurio aut varicoso*, (ut vocari potest), vena dirupta et profusione sanguinis æger mortuus est.

Quivis abscessus communis aut *strumosus*, arteriam carotidem obtegens, (quod certe non raro fit), tali motu cieatur, quali verum aneurisma, pure contento motu arteriæ carotidis impulso. Idem fas est dictu de profusione sanguinis in partes carotidem circumdantes ex vasis sanguiferis fere innumeris hic loci sitis, ruptis aut vulneratis. Scarpa sic loquitur de hac re: "Alcune volte, per verità, nel "collo sono stati presi dei sbagli, e fu giudi-"cato esservi un Aneurisma, quando la malat-"tia non era propriamente che una ghiandola "indurita, siccome la Tireoidea, o qualche "ghiandola linfatica ingrossata, la quale ri-"ceva un'impulsione dalle Carotide sulla "quale appoggiava. L'Allero (*Opusc. Pa-"tholog*. Obs. vi.) scrisse d'un soggetto cui "fu giudicato avere un aneurisma della

"Carotide, nel quale, dopo morte, fu tro-
"vata la Carotide in istato sano, e natu-
"rale*." Nullius esset momenti longam orationem habere de iis morbis quos medici false aneurisma carotidis judicare possunt, nisi par metus esset ne *hoc* pro *illis* haberi posset, et ne scalpellum immissum ad pus aut sanguinem effusum in telam cellulosam ejiciendum, quamprimum arteria carotide vulnerata occideret; ex hac ipsa causa miles mortuus est, cujus affectum in ejus primo casu Scarpa memorat: "Dopo sei mesi ebbi "contezza, che questo infelice aveva perduto "la vita fra le mani d'un ignorante Ciarlata-"no, *che gli aveva aperto il tumore creduto un* "*ascesso.*" (Vide casum in hac Append.) In exemplo aneurismatis carotidis cujus Hallerus meminit, vix fecit ut chirurgus a ferro

* Nequeo invenire hanc observationem apud Hallerum: ejus observatio sexta ad *strumam* pertinet, neque aliquid de re proposita habet. Ob casum Halleri apud hanc Append. lector dijudicare poterit, necne illum perinsignem pathologum natura morbi fefellerit.

immittendo, *quo pus expelleret*, abstineret. "Ut chirurgus, *quem aliqua undulatio tumo-* "*ris fallebat, jam cultrum expediret, quem* "*ægre nos retinuimus, quibus pulsus* obscu- "rior equidem, tamen suspicionem moverat." (Vide casum in hac Append.)

Apud paginas secuturas quædam exempla sunt gravissimi momenti de quibus non supra dixi: horum historias accepi, dissertatione jam scripta et in manibus Professoris Monro. Grates sinceras habeo Domino Cooper ob eas historias quibus me donavit. Quod publico testimonio mihi licet reddere gratias Domino Travers propter ea quæ mecum communicavit de re proposita, magna voluptate afficior. Dominus Travers cultoribus rei chirurgicæ nimis notus est, et ejus ingenium nimis elucet, ut mihi opus esset hic amplioribus uti verbis; at vero non possum non lætari, in animo pendens quantum excolenda et augenda est, conatibus alumni illius viri Domini Cooper, qui tanto honore fungitur officio spectatissimo et gravissimo apud nosoco-

mium Guy, et qui habet alias occasiones optimas ejus scientiam eximiam rei medicæ exercendi et promovendi *.

Exemplum Aneurismatis Arteriæ Carotidis a Petit prolatum †.

Au commencement de l'année 1758, M. Vieillard, médecin de Paris, homme d'esprit et très instruit dans son art, s'apperçut que M. son frère, avocat du roi au bailliage de Saint-Lô, portoit sous le côté droit de la mâchoire inférieure une petite tumeur à laquelle personne n'avoit encore pris garde. Ce mal étoit très léger en apparence, et cependant M. Vieillard le médecin s'en alarma, au point de dire à quelques personnes qu'il regardoit son

* Mr Travers is Demonstrator of Anatomy at Guy's Hospital, Surgeon to the Honorable East India Company, &c.

† Les Mémoires de l'Acad. des Sciences, An, 1765.

frère comme un homme mort. Ses craintes, qu'il ne chercha point à dissimuler, ne passèrent point dans l'esprit de son frère ; celui-ci prétendoit que son mal n'étoit qu'une bagatelle, et il ne voulut pratiquer aucun des remèdes qui pour lors lui furent conseillés. Mais voyant, deux mois après cette première époque, que la tumeur s'étoit accrue de moitié, il consentit à appliquer dessus un bandage propre à la contenir ; il n'en recueillit aucun fruit, la tumeur continua à s'augmenter ; le malade se dégoûta du bandage, et le quitta : il s'agissoit de trouver un autre moyen de s'opposer au progrès du mal. On assembla dans cette intention plusieurs médecins et chirurgiens ; M. Bourdelin, membre de cette Académie, étoit du nombre des consultans ; j'en étois aussi. Par l'examen que nous fimes de la tumeur, nous reconnumes qu'elle étoit situés un peu plus bas que l'angle de la mâchoire inférieure, qu'elle étoit de la grosseur d'un œuf de pigeon, qu'on y sentoit une pulsation très-manifeste, et quand

on la comprimoit, on la faisoit disparoître; mais bien-tôt après elle se representoit comme auparavant. Presque tous les consultans furent du même avis sur la nature de la tumeur: on décida que c'étoit un anévrisme vrai; les sentimens se partagèrent, quand il fut question de fixer précisément le siége de cet anévrisme; et mon particulier je présumois que c'étoit vers la bifurcation du tronc de la carotide, que la dilatation s'étoit faite: on convint géneralement que le cas n'étoit pas sans danger, et que, pour le prévenir, les fréquentes saignées étoient nécessaires; on conseilla de plus au malade, d'observer le plus grande régime, et d'éviter avec soin tout exercice violent tant du corps que de l'esprit. M. Vieillard exécuta pendant près de trois mois ce qui avoit été décidé dans la consultation: la tumeur diminua de moitié, et le malade se voyant en train de guérison quitta Paris, pour s'en retourner à Saint-Lô.

Ce fut lors de ce départ que M. Vieillard le médecin dit à plusieurs personnes, qu'il

croyoit que le reste de l'anévrisme achèveroit de disparoître ; qu'il pensoit de plus que la cavité de l'artère elle-même s'effaceroit entièrement ; et qu'alors il y auroit tout à craindre pour les jours de son frère : qu'il ne seroit pas étonné de recevoir au premier moment la nouvelle de sa mort : l'évènement n'a que trop justifié la hardiesse de ce pronostic singulier. De retour à Saint-Lô, M. Vieillard, jouissant en apparence d'une bonne santé, oublia les conseils que nous lui avions donnés ; il negligea de se faire saigner ; il abandonna le régime et reprit sa manière de vivre ordinaire ; la tumeur n'en continua pas moins à diminuer, et disparut enfin tout-à-fait.

Au bout de deux ou trois ans, quelques affaires ayant appellé M. Vieillard à Paris, je le vis, je l'examinai, et je m'assurai par moi-même, qu'il ne restoit de l'ancienne tumeur prétendue anévrismale qu'un petit nœud situé sous la mâchoire, à l'endroit ou la tumeur avoit existé ; ce nœud étoit fort dur, d'une forme oblongue, et sans aucune pulsation ;

les artères temporales et maxillaires de ce côté battoient très-foiblement. Ce changement, qui n'avoit été attendu que de M. Vieillard le médecin, n'avoit apporté d'autre incommodité au malade que celle de prononcer avec un sorte de difficulté, de bégayer un peu, et d'avoir la bouche habituellement remplie de salive, enfin de ne pouvoir tirer la langue hors de la bouche.

Sept ans se sont écoulés dans cet état, sans que pendant tout ce tems il soit arrivé le moindre accident : vers la Pentecôte de l'année dernière, M. Vieillard vint à Paris en assez bonne santé, mais il étoit aisé de s'appercevoir que sa bouche étoit inondée d'une plus grande quantité de salive, et que la prononciation étoit plus difficile. Enfin le Samedi 24 Novembre, il fut frappé d'une forte apoplexie, dont il est mort au bout de quelques jours. On avoit observé dans les trois ou quatre jours qui avoient précedé cette attaque, qu'il étoit comme une personne ivre, qu'il ne raisonnoit pas juste, et que d'un mo-

ment à l'autre il ne se souvenoit pas de ce qu'il venoit de dire ou faire. J'ai fait la dissection de son cadavre en présence de plusieurs personnes, et notamment de M. Maloët, très-habile médecin, avec lequel j'avois vu le malade dans le tems de sa dernière maladie: voici les choses que nous y avons observées.

Le côté droit du cerveau étoit couvert d'une sérosité sanguinolente; sous cet épanchement le cerveau étoit sain, il n'y avoit aucun épanchement à l'exterieur du côté opposé, mais en ouvrant le ventricule supérieur il en sortit environ cinq à six onces de sang diffus, et il resta un caillot de sang coagulé, de la grosseur d'un petit œuf de poule, il étoit placé en arrière sur les couches des nerfs optique; cette concrétion de sang cachoit une ample et profonde crévasse qui s'étoit faite dans la substance même du cerveau à l'endroit designé; il est évident que cette crévasse et l'épanchement qui s'en est suivi ont été les causes determinantes de l'a-

poplexie dont M. Vieillard est mort. Du côté gauche, c'est-à-dire du même côté où tout ce désordre s'étoit opéré, l'artère carotide et les branches qui en prennent naissance nous ont paru avoir un tiers plus de calibre que dans l'état naturel.

Ce que nous cherchions spécialement à connoître, c'étoit l'état de l'ancienne tumeur jugée anevrismale, et celui de l'artère carotide, à la dilatation de laquelle on avoit cru devoir l'attribuer ; ainsi nous tournames notre attention de ce côté, et nous découvrimes, avec un grand étonnement, au moins de ma part, que le pronostic tiré par M. Vieillard le médecin étoit pleinement justifié, *c'est-à-dire que l'artère carotide droite étoit complétement oblitérée depuis sa séparation de l'artère souclavière droite, jusqu'à sa division en deux branches principales, ce qui répond à peu près à l'angle de la mâchoire inférieure :* en se bouchant tout-à-fait, cette artère qui est ordinairement grosse comme le bout du petit doigt, s'étoit convertie en un cordon grêle, dans l'interieur duquel on ne

distinguoit aucun trace de conduit, et ce cordon pouvoit avoir environ deux lignes de diamètre. Il y avoit dans le bas de cette artère, précisément à l'endroit où elle naît de la souclavière droite, il y avoit dis-je, un petit sac anévrismal, gros comme un noix muscade ordinaire, sa tunique étoit fort mince, et l'interieur de sa cavité étoit rempli par une matière en partie graisseuse, en partie semblable à du sang desséché; on distinguoit encore l'ouverture par laquelle, avant l'oblitération de l'artère, ce sac communiquoit avec la cavité de l'artère elle-même; cette ouverture étoit fort petite. Enfin à la place de la tumeur ci-dessus décrite il se trouvoit un nœud dur, oblong, gros comme le noyau d'une olive, et qui n'avoit aucun cavité à l'interieur, les artères laryngées, sublinguales, et maxillaires y aboutissoient, et avoient un calibre plus petit que dans l'état naturel.

Exemplum ab Halleri Opusculis Pathologicis.*

Morbos varios colli diversis annis visos hoc loco adduco. Eorum princeps fuit aneurisma arteriæ carotidis, quod in hortulano anno 1749 vidisse contigit. Languerat homo obnoxius suffocationibus, pulsu veloci, ineptus ad labores, hactenus tamen valens; ut chirurgus, quem aliqua undulatio tumoris fallebat, jam cultrum expediret, quem ægre nos retinuimis, quibus pulsus, obscurior equidem, tamen suspicionem moverat.

Tumor erat albus omnino, cutique concolor, qui sensim increverat, hinc aure et maxilla inferiori, inde clavicula terminatus. In eo duritas quædam, neque satis elastica, neque puri similis latenti, neque tamen ossi, aut induratæ materiei similis erat. Cedebat sub digitis, quod tumore continebatur, neque tamen ita redibat, ut fluida solent.

Mors ipsa miserum periculosæ operationi

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* Halleri Opuscula Pathologica, Obs. iv.

eripuit, chirurgum vero dolori, qui honestum virum non potest non premere, quoties ægro, cui subvenire conatus est, potius nocuit. Dissecuimus sub noctem, urgente occasione, partes ægras. Cuti remotæ continuo tumor ipse successit, membraneus, cellulosus, spongiosus, cuti adhærens, pugno duplo major. Eum denique longo labore ita mundavimus, ut carotidem esse, et a subclavia adusque divisionem duorum ramorum carotidis extendi adpareret. Induruerat membrana carotidis, et crassior facta erat, et amplior, ut minus deceat mirari eos, qui uterum gravidum crassiorem reddi vident.

In ipso sacco aperto multum grumorum sanguineorum fuit, quorum exterior pars et membranæ arteriosæ finitima, in spongiam cellulosam abierat. Fluidi sanguinis parum inerat.

*Exemplum e Londini Observationibus et Investigationibus Medicis**.

Richard Trigg, aged forty-eight years, of an athletic habit of body, and who had been accustomed to hard labour, his occupation being that of a porter, had likewise drank very freely, and lived otherwise with great irregularity. He had been affected with a difficulty of breathing for a month past, together with a slight cough, and at intervals he expectorated *mucus* pretty deeply tinged with blood: he had likewise, at the same time, perceived an increasing tumor on the neck, situated on the left side of the *trachea*, and the superior part of the tumor extending before it. This tumor was about the size of a small hen's egg. These complaints had gradually increased until this time, the 29th

* London Medical Observations and Inquiries, vol. vi. p. 23.

of October 1776, when he was admitted a patient into the Leicester Infirmary.

With the most able medical assistance, the difficulty of breathing and *hæmoptoe* very soon left him, and in about a week's time he became free from his complaints, except the tumor on his neck, which being supposed to be an aneurism, medical assistance, on that account, was thought to be of no avail; he was therefore discharged the hospital, apparently well in other respects.

The 9th of November he had a return of his former complaints, for which he was re-admitted into the hospital. These ills were again almost totally removed: but on the 26th of November he again spit up blood, though in a very small quantity, and without any material inconvenience. On the 27th, his spitting of blood was rather increased, but was yet inconsiderable. He had been, through the day, very cheerful, finding himself greatly relieved from his complaints, and expected a speedy recovery; he had taken

his food with a good appetite, and in the evening, after cheerfully eating his supper with the other patients, he retired to his bed in the highest spirits. Immediately afterwards he was seized with a fit of coughing, which was occasioned (as he himself expressed it) by a bit of bread going the wrong way; he was soon easier, and undressing himself, got into bed. Soon after this he was again attacked by the cough; he called out for help; he was supported over the side of the bed by two assistants, and spit up some more blood; when suddenly he brought up about eight ounces of blood and *mucus*, and instantly expired.

The cause of his sudden death not being so clearly understood as might be wished, we had recourse to an examination of the parts after death, in order the more fully to investigate it: the appearances of which, as they were shewn by dissection, I will beg leave to relate.

The left carotid artery was found dilated to the size of a small hen's egg, about an

inch and half above the *aorta*, the aneurismal sac lying obliquely upon the inferior part of the *larynx*, and the upper end of the *trachea*. This enlargement of the artery was filled with a pretty firm coagulum.

The left subclavian artery went off at a much greater distance from the carotid than usual, being situated more than an inch distant to the left of it. There did not appear to be any more aneurisms in the large arteries, which were carefully examined.

This patient had enjoyed the greatest share of health till within two months before his death; when he began to find some difficulty in breathing, and perceived the aneurism of the carotid artery to increase *.

Exemplum primum a Scarpa prolatum †.

Alcuni anni fa ho veduto, ed esaminato io pure un Aneurisma della Carotide destra in

* Quæ in hoc casu nullo modo aneurismati carotidis pertinent omittuntur.

† Scarpa, Sull' Aneurisma, &c.

un Militare, il quale precipitato col cavallo dalle mura di Mantova soffri una validissima torsione, e stiratura nel collo. Il tumore occupava il lato destro, dietro l'angolo della mascella; e porgeva in fuori come un pugno, e pulsava con grande veemenza. Dopo sei mesi ebbi contezza, che questo infelice aveva perduto la vita fra le mani d'un ignorante Ciarlatano, che gli aveva aperto il tumore creduto un ascesso.

Exemplum secundum.

In un altro caso d'Aneurisma della Carotide, il Dottore Piccinelli, primo chirurgo dello Spedale di Bergamo, e mio respettabile amico, mi ha procurato l'opportunità d'esaminare nel cadavere le parti. La Storia della malattia è come segue. Lucrezia Boffetti d'anni 44. entrò nello Spedale di Bergamo il giorno 16. Febbrajo 1803. a motivo d'un tumore pulsante della grossezza di due uovi di gallina, che essa da tre mesi portava nel lato

sinistro del collo, e che fu giudicato un Aneurisma *vero,* ossia *saccato.* Non fu possibile d'iscoprire le cagioni di questo Aneurisma. La malata non seppe dir altro, se non che erano trascorsi soltanto tre mesi, da che essa s'era accorta d'avere questo tumore nel collo, il quale, lungi d'aver ceduto all'uso d'interni, ed esterni remedj, andava anzi ogni giorno più visibilmente crescendo. Essa aveva però da due mesi un'ulcera venerea sul labbro sinistro della vulva, quantunque senza ingrossamento delle ghiandole inguinali, e senza segni manifesti di Lue. L'inferma si trovava oltre modo estenuata quando entrò nello Spedale. Non pertanto si dovettero replicare per intervalli delle picciole missioni di sangue, siccome era questo l'unico mezzo di diminuire la dolorosa distensione del tumore, e di procurare qualche sollievo alla infelice malata. Malgrado ciò il tumore s'accrebbe, ed occupò il tratto che avvi fra la clavicola, e l'angolo della mascella inferiore. Il giorno 2. d'Aprile dello stesso anno la cute

del lato sinistro del collo eccessivamente distesa screpolò, e diede luogo ad un ulcera rotonda, la quale intaccò il sacco Aneurismatico, e mise allo scoperto, il primo strato cotennoso dell Aneurisma senza che ciò fosse susseguito da emorragia. Il giorno 13. dello stesso mese incominciò a rompersi, ed a ulcerarsi anco la cute che copriva la sommità del sacco Aneurismatico e la corrosione andò tanto profondamente, che il giorno 8. di Maggio alle 4. pomeridiane penetrò nel cava dell'Aneurisma, di dove uscerono improvvisamente dodici once di sangue. Queste bastarono perchè la donna già estenuata cadesse in deliquio; riavutasi dal quale, e dopo aver preso un poco di vino, verso la mezza notte spirò. Aperto il cadavere si trovò che l'Aneurisma era effettivamente della Carotide sinistra, l'origine della quale arteria in questo soggetto deviava dalla comune maniera in ciò, che nasceva dall'arteria *Innominata;* che è quanto dire *l'Innominata* dava origine alle due Carotidi, ed alla Sottoclaveare destra. Walter, e Mala-

carne avevano già in altra occasione osservata, e delineata questa varietà. L'arco della Aorta, ed il cuore erano in istato sano; l'arteria pulmonare un poco più grossa del consueto. La Carotide sinistra, dalla quale era derivato l'Aneurisma, vedevasi dappertutto del naturale suo calibro. Il sacco Aneurismatico erasi fatto aderente alla ghiandola Tireoidea. Aperto il sacco Aneurismatico dalla sua sommità, ossia dal luogo della seconda screpolatura in basso, e vuotati i grumi di sangue, comparve nel fondo di detto sacco la Carotide sinistra crepata da un lato pel tratto di sei linee, &c. &c.

Exemplum a Domino Joanne Bell editum *.

Elizabeth Wallace, a flesh cadie, (a woman serving as porter in the butcher market,) no more than twenty-four years of age, had led a very dissolute and abandoned life:

* Principles of Surgery, vol. iii. on Tumors.

about ten days before she took to bed in the Infirmary, she had a cold, or the symptoms of cold; but whether the exertions of coughing had started the carotid artery, or whether the posture in which these people carry their heaviest burdens, strapping their baskets over their forehead, and straining with the neck, had injured the artery, the dilatation of which, and its pressure had excited the cough, we now can never decide. It was about that period she first observed the lump, which, when she sought an asylum in the hospital, was yet no bigger than a walnut. She had no other complaint beside cough and difficulty of breathing, but the cough was at times so violent, and accompanied with such straining, that the nurse who watched her, pitied her. At this period the difficulty of deglutition was slighter, insomuch that she could swallow both meat and drink, yet slowly and painfully.

About ten days after her admission into the hospital, the swelling which had increa-

sed from day to day, was prominent and visible; she swallowed with the utmost difficulty; the tumor was perseveringly mistaken by the physicians for the swelling of a sore throat, was embrocated by day with stimulating oils, and by night was covered with a poultice.

The tumor, by the twenty-fifth day of her disorder, had attained the size of the fist; the difficulty of deglutition, which had increased with the increase of the tumor, was such that she was no longer able to swallow solids; she could force over only a little bread, honey, or gruel: by the thirtieth day even that was no longer practicable; and she tried, not always successfully, to suck up through the stalk of a tobacco-pipe a little thin gruel, or warm milk.

During the last week of her existence, even this poor resource failed her; whatever she attempted to swallow gushed instantly upwards through the nostrils, with most imminent danger of suffocation: the six days

preceding her death, she refrained from all such unavailing attempts, and was sustained in some degree by injections of broth and jellies; she pined away, and, after lying some time in a lethargic state, expired without any kind of suffering. Never have I seen a tumor whose character was so strongly pronounced; perhaps this aneurism (like that which is but slightly mentioned, I know not where, of a German nobleman, who, in the exercise of hunting, turned his head suddenly and violently to one side, and had thence a fatal aneurism of the carotid artery) was caused, and the carotid in this woman injured in its coats, by some violent strain in carrying her basket: the smallness of the tumor, its place directly under and behind the angle of the jaw, its manifest connection with the carotid artery, its rising with each pulsation of the carotid, and getting a stronger pulsation in proportion as its size increased, proved, to my entire satisfaction, that it was a true aneurism, in which the sac filled by

the carotid trunk gave a heavier pulsation in proportion as it was dilated. I never saw this poor creature in any violent paroxysm of coughing; I found her always lying with her head low, still, and flat, apparently oppressed, languid, and unwilling to speak, seemingly in a state of stupor, perhaps only languishing for want of food. The tumor occupied the side of the neck, filled all the angle of the jaw, the whole hand spread out upon it just contained it: the pulsation was deep, heavy, and impressive; you could not but feel an awful presentiment that it must soon burst. She lived no longer than six weeks from the very first of her complaints; we saw the aneurism in its incipient stage, and watched it through this short period in which it increased to this fatal size. To know that such a disease does exist, (for this has been doubted,) is enough to put us on our guard; and we cannot wonder, that the pressure of a distended artery, which in the ham destroys the knee-joint, and makes the bones

carious, should thus compress the flexible tube of the pharynx, and prevent swallowing. This girl, Wallace, except the cough, had no other complaint, and slept away as one starved to death.

Exemplum primum a Domino Astley Cooper prolatum.*

Mary Edwards, aged 44, was brought to my house by Mr Robert Pugh of Gracechurch-street, that I might examine a tumor in the neck, which was obviously an aneurism of the right carotid artery. I advised her to become a patient in Guy's Hospital, and she was admitted on the 23d of October 1805. The account she gave of the disease was, that the tumor appeared five months before, situated rather above the middle of the neck, its size at first being only that of the end of the finger; that it beat with very great force,

* Medico-Chirurgical Transactions, vol. i. 1809.

and occasioned a strong pulsation in the brain; that it gradually increased upwards, until it reached the lower jaw, and extended downwards below the middle of the neck; that for a fortnight previous to her admission, the pulsation in it and in the brain had been so strong as to prevent her sleeping; that the scalp on that side was tender, so as scarcely to bear the touch; that she had great difficulty in taking any solid food, and was constantly teazed with a violent cough. Upon examination of the swelling I found that it occupied two-thirds of the neck; it had a very strong pulsatory motion, and the skin was thin at its most prominent part. When the swelling was examined at the hospital, great doubts were entertained if there was sufficient space between the clavicle and the tumor for the application of a ligature, and as her husband objected to the operation, she quitted the hospital. In a few days, hearing that all her symptoms were increased, I called at her house, and strongly point-

ing out the probability of a fatal termination of the disease, I gained her consent and that of her relations to an operation. On Friday, Nov. 1. 1805, the operation was performed, in the presence of Mr Pearce, surgeon, and Mr Owen, apothecary to the Universal Dispensary, Ratcliffe Highway, of Mr Travers, surgeon, and that of five other medical gentlemen. The tumor at this time reached from near the chin beyond the angle of the jaw, and extended downward to within 2½ inches of the clavicle. I made an incision two inches long, on the inner edge of the sterno-mastoid muscle, from the lower part of the tumor to the clavicle, which laid bare the omo- and sterno-hyoideus muscles, which being drawn aside toward the trachea, exposed the jugular vein. The motion of this vein produced the only difficulty in the operation, as under the different states of breathing it sometimes presented itself to the knife, tense, and distended, and then as suddenly collapsed. Passing my finger into the wound

to confine that vein, I made an incision upon the carotid artery, and having laid it bare, I separated it from the par vagum, and introduced a curved aneurismal needle under it, taking care to exclude the recurrent nerve on the one hand, and the par vagum on the other. The two threads were then tied about half an inch asunder, being the greatest distance to which they could be separated; I thought it proper not to run the risk of a hæmorrhage by dividing the artery, as I was fearful the ligatures would be thrown off by the force of the heart, and the distance was too small to allow of any means being used to prevent it. As soon as the threads were tied, all pulsation in the tumor ceased, and the operation being concluded, and the wound superficially dressed, she rose from the chair in which she sat during the operation, and was immediately seized with a fit of coughing, which I thought would have terminated her existence. This seemed to arise from an accumulation of mucus in the trachea, which

she could not expel; it continued about half an hour when she became more tranquil. —*Saturday, Nov.* 2. Mr Owen, who had sat up with her, reported that she had slept six hours during the night, but was now and then disturbed by her cough. The pulsation in the tumor has not returned; that in the brain has ceased, and there is no appearance of diminution of nervous energy in any part of the body.—*Sunday, Nov.* 3. Last night as she had some pain in her head, leeches were applied. To-day the pain in her head is gone; her cough is less troublesome; her stools and urine are natural; pulse 96.—*Monday, Nov.* 4. Slept six hours last night; her spirits are good; pulse 100. —*Tuesday. Nov.* 5. In the afternoon, I found her, as may be supposed contrary to my orders, sitting before the fire with three other persons, drinking tea, which she swallowed with great difficulty; she had no pain in her head; her pulse 96, and the only circum-

stance of which she complains, is that her cough is troublesome.

Wednesday, Nov. 6.—In a violent fit of coughing last night, a slight discharge of venous blood took place from the wound. Mr Hopkie of Ratcliffe Highway was called to her; but the bleeding ceased with the cough, and a piece of lint was laid lightly on the wound; in the afternoon her cough was less troublesome; her pulse only 92. —*Thursday, Nov.* 7. My colleague, Mr Forster, accompanied me to see her and to make a drawing of the tumor, which he thought was reduced one-third. She slept eight hours last night; her pulse 94.

Friday, Nov. 8.—Evening; I was sent for by Mr Owen and Mr Roberts, who alternately sat up with her, on account of their observing that her left arm and leg were paralytic. I found them benumbed, and she moved them with great difficulty; but as her pulse was weak, and she laboured under considerable constitutional irritation, I

thought the powers of these parts would be restored as her health improved. She had passed a very restless night, complaining that her bones were sore, and that her teeth felt as if softened. Her head is free from pain.—*Saturday, Nov.* 9. Her cough is less troublesome; her pulse is 90; her spirits good; she talks with cheerfulness, and moves her arm with more facility than yesterday. She slept eight hours last night; she said she must have something to eat; but upon attempting to swallow solids she was incapable of doing so. She has no pain either in the head or tumor, but says, when she coughs she feels a pricking pain in the wound. —*Sunday, Nov.* 10. I did not see her.—*Monday, Nov.* 11. She had passed a good night; her left arm she now moves with more facility, but I thought with not quite so much ease as the other. She is in good spirits, and has some appetite, but cannot swallow solids. Her chief sustenance is arrow root, to which, as she had been very much accus-

tomed to take spirits, a little wine is added. —Her cough is sometimes very violent; her pulse is only 84; the ligatures are projecting further from the wound, than at any time since the operation.—*Tuesday, Nov.* 12. My colleague, Mr Lucas, accompanied me to see the woman this day. We found her in good spirits, and the pulse only 82, her cough less troublesome, and she was able to sit up and use her arm with so much facility that it required that the attention should be particularly directed to the part, to discover any difference in the powers of the two arms. When the dressings were removed, the ligatures were drawn from the wound, including the intervening portion of artery. The edges of the wound were then brought together by adhesive plaster.—*Wednesday, Nov.* 13. Her cough is less troublesome; she swallows liquids with more ease. The only complaint she makes is of a pain in the back, of which she was relieved by a dose of magnesia vitriolata.—*Thursday, Nov.* 14. She slept eight

hours last night, and her state is in every respect improved; she swallows with less difficulty; the tumor is reducing in size, and is entirely unattended with pain. As I now considered her out of danger I did not visit her on Friday or Saturday; but Mr Jones, one of my house-pupils, visited her and found the wound nearly closed.

Sunday, Nov. 17.—I was much disappointed to find her labouring under a high degree of constitutional irritation; the tumor was also increased and very sore upon pressure; the wound was as large as immediately after the operation, and discharged a sanious serum; she complained of a great difficulty in swallowing, and of a most distressing cough after the fits of which she hooped violently; her pulse 96; and her left arm again weaker than the other.—*Monday, Nov.* 18. She had passed a restless night; complains of pain in her head, and the size of the tumor has increased; there is great soreness upon the neck, when it is pressed; the pulse is quick,

and the tongue is furred.—*Tuesday, Nov.* 19. Her pulse is very quick; she had no sleep last night, although she took forty drops of tincture of opium; the tumor is still more increased, and the skin over it of a brownish red colour.—*Wednesday, Nov.* 20. She had slept three hours last night; her pulse is 108, and small; she is unable to swallow even her saliva, which constantly dribbles from her mouth, and every attempt at deglutition produces a violent cough.—*Evening.* Her pulse 120; she is in a profuse sweat; and still unable to swallow.—*Thursday, Nov.* 21. She died.

DISSECTION.—The aneurismal sac was found inflamed, and around the clot of blood which it contained, there was a considerable quantity of pus. The inflammation extended on the outside of the sac along the par vagum, nearly to the basis of the skull. The glottis was almost closed, and the internal surface of the trachea was inflamed, coagula-

ting lymph adhering to its mucous membrane. The sudden increase which the parts had undergone from inflammation, added to the size of the tumor previous to the operation, had occasioned so much pressure upon the pharynx, that it would not easily admit a bougie of the size of a goose quill. The nerves, as may be seen, sustained no injury, the ligature having passed between the recurrent and the artery on the one hand, and the par vagum on the other.

The cause of her death then, was the inflammation of the aneurismal sac and the parts adjacent, by which the size of the tumor became increased so as to press on the pharynx and prevent deglutition, and upon the larynx, so as to excite violent fits of coughing, and ultimately to impede respiration. A similar event, however, may be in future prevented, by performing the operation when the tumor is small, and pressure has not been made by it upon important parts, or if it is of considerable size, as in

this case, by opening the tumor and discharging the coagulum, as soon as inflammation appears.

As I could not obtain permission to open the head, the cause of the paralysis remains unknown. It did not immediately succeed the operation, but was observed first on the eighth day after it. It came on whilst she laboured under great constitutional irritation, lessened as it decreased, and returned when the irritation became greater; but as it appeared that the irritation which she suffered was owing to the operation being too long deferred, it will not prevent my performing it in any case in which the disease is somewhat less advanced.

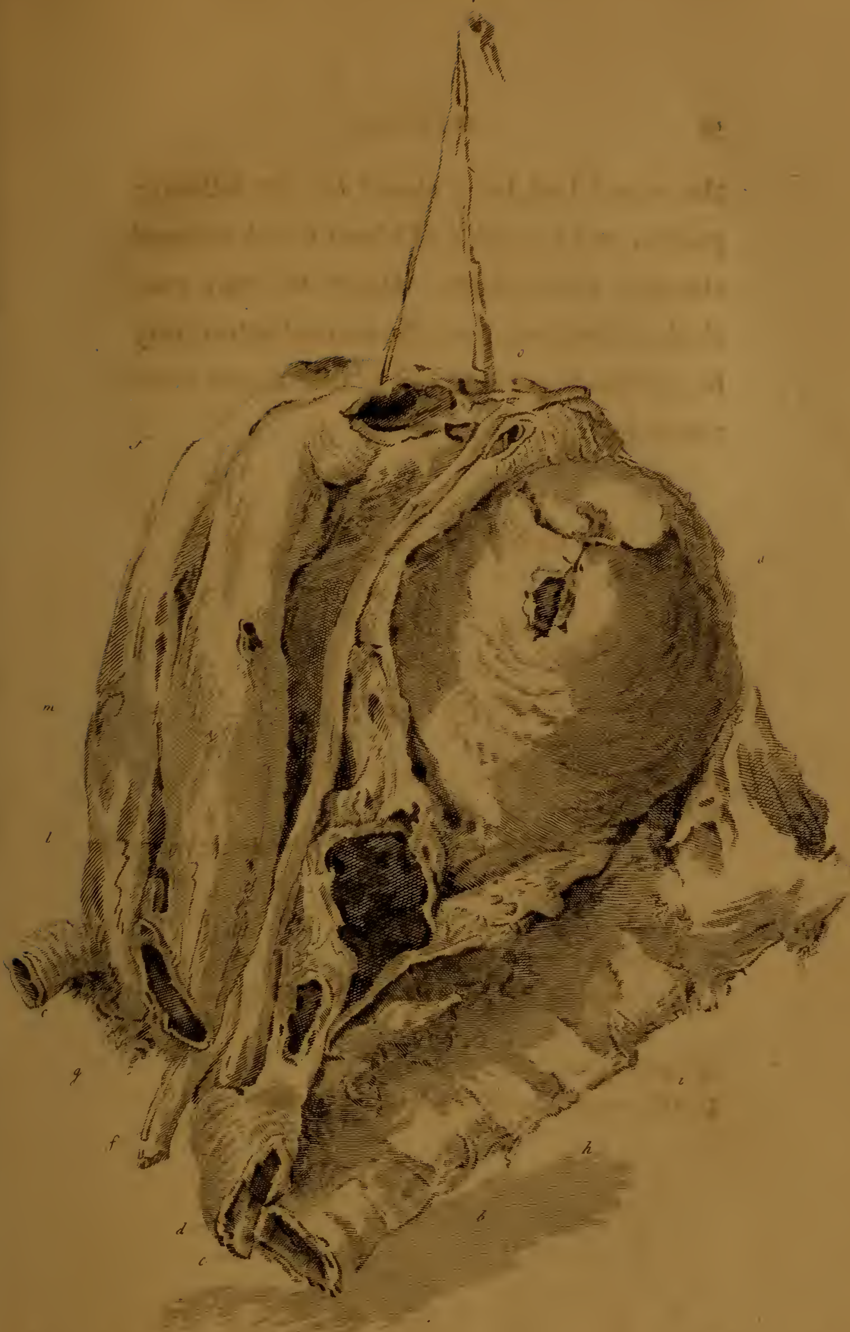
It appears that no objection can be made to this operation on account of any unusual danger of bleeding at the time the ligatures separate, since, although they were discharged from the wound on the twelfth day, and they were certainly separated from the artery on the eleventh, the ulcerated extremity of

the vessel had been closed by the adhesive process and by a clot of blood which adhered strongly to its coats. Hence we may conclude, therefore, that the carotid artery may be, in this respect, as safely tied as any other artery in the body.

EXPLANATION OF PLATE FIRST.

A. Aneurismal Tumor.
B. Trachea.
C. Right Subclavian Artery.
D. Arteria Innominata.
E. Clot continued within the Arteria Innominata.
FF. Pars Vaga.
G. Carotid Artery, with a portion of it removed to shew the clot within it.
H. Recurrent Nerve.
I. Larynx inflamed and ulcerated.
L. The ulcerated Artery, where the ligature had been applied.
M. Jugular Vein.
O. Clot exposed in the artery above the tumor.

The line of reference from G. is wrong in the engraving.



J. Bell del. E. Mitchell sculp.

Exemplum ex propriis notis Auctoris editum *.

Humphridius Humphreys quinquaginta annos natus, vir robusti habitus et athletici, in nosocomium Guy advectus est, Domino Astley Cooper curante, die xxiido Junii, anno MDCCCVIII, aneurismate sinistræ carotidis laborans: hæc autem est historia mali. Multos annos geruli officio functus Londini, et prospera valetudine usus erat, usque ad sex vel septem abhinc menses; quum primum notavit exiguum tumorem, mole fere juglandem æquantem, pulsatilem, in parte sinistra colli positum, sub maxillæ inferioris angulo, et deorsum usque ad os hyoideum pertinentem. Abhinc quinque mensibus, dolor immanis sinistri lateris capitis, cum magno motus pulsatilis sensu ad idem latus cerebri, amplificationem tumoris comitabatur; loquela tumore impediebatur, et paulatim minus clara fiebat;

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* Hoc exemplum nuper prolatum est à Dom. A. Cooper. Vide Medico-Chirurgical Transactions, vol. i. 1809.

circa superiorem partem laryngis irritamentum sensit, quod rauca tussis subinde oriens sublevavit; at progressus morbi non respirationem impediebat; tussis e tumore laryngem premente penitus oriri videbatur; appetitus cibi abnormis; tres aut quatuor dies satis bene cibos sumebat, deinde per multos eos fastidiebat; et subinde nausea laboravit inter edendum, sed nunquam ad vomitum. Illi frigoris sensus apud aurem sinistram sæpe erat, calore succedente; oculi sinistri mutatio mira fuit, qui palpebris contractis imminutus esse videbatur. Tribus dehinc mensibus, Dr Hamilton vesicatorium præcepit, quod dolorem capitis levabat; et duobus postea mensibus alterum admovebat, et paucos dies retinebat simili fructu. Æger operari usque ad diem, quo in nosocomium receptus est, perstitit.

Operationis die, xxii^{do} Junii nempe, septimo mense ab origine morbi, arteriæ carotidis amplificatio proxime infra maxillæ angulum erat; et juxta angulum acutum, qui *divisione*

magna carotidis communis fit, apparebat; tumor magnitudine ovum gallinaceum simulabat, in medio prominens, et ejus pulsatio valida erat; sacco exinanito, id quod premendo facile erat factu, tumor in pristinam magnitudinem ex unica cordis contractione resiliit; cætera indicia ejus veræ naturæ apparebant.

Dominus Cooper carotidem communem infra amplificationem *aneurismaticam* ligare sibi proponens, a fundo tumoris, e regione partis superioris cartilaginis thyroideæ secare cœpit, et per interiorem musculi mastoidei marginem ad punctum pollicem e clavicula distans secuit; deinde musculi marginem elevare cœpit, ut fasciam, quæ carotidem, venam jugularem, et partem vagam includit, in medium afferret. Inter secandum duæ arteriæ parvæ incidebantur, et opus erat ligamento, (per operationem ex his vasis solis sanguis effundebatur); musculus omo-hyoideus fasciam transcurrere videri poterat; nervus descendens noni, in musculos juguli anterioris dispergendus, descendere apparebat. Dom.

Cooper nunc fasciam nudavit, vena jugulari primo patefacta, quæ singulis expirationibus distenta, seipsam arteriæ quasi *supersternere* videbatur; vena e situ retracta, pars vaga inter eam et carotidem patebat: hic nervus, quia amplus erat, facile scalpellum effugit, sed ægrius ramuli nervorum quidam ab arteria sejungebantur. Dom. Cooper tamen summa prudentia progrediebatur, et manubrio scalpelli solo rem prosperè gerebat; parte arteriæ infra satis a vicinis partibus separata, ut daret transitum instrumento, (valido hamo ad finem *bulboso*), ad hunc ipsum usum facto; duplex ligamentum ei affixum est, et instrumentum subductum est, ligamentis sub arteria relictis; ligamentis deinde sejunctis, inferius quam proxime ad partem arteriæ patefactam arcte admotum est; tumoris motus pulsatilis, quamvis multum diminutus, adhuc sentiendus erat. Dom. Cooper, ope scalpelli manubrii, ad locum fere pollicem distantem a ligamento inferiore et supra hoc, arteriam a vicinis se-

junxit; et ligamentum superius, tam alte quam vasis nexus ad partes adjacentes sinerent, arctum reddidit; ligamenti utriusque finis per ejus partis arteriæ tunicas transiit inter ligamenta per acum communem uncum, et eo modo a Domino Cline juniore commendato vinctus, arteria deinde in medio divisa sanguis jam coactus repertus est. Nihil nisi curatio ægri nunc restabat, quæ, partibus contractis et strupis adhærentibus, fiebat; ligamentis ad vulneris extrema eductis, et lini plica, strupis retenta, superimposita. Dum curandi officio fungebar, antequam Aula decessi, ægrum interrogavi, num caput inusitate laborans sensit; respondit minime, sed ab operatione se dolore immani et pulsatione prius descripta, quæ firme perpetuo fuerant menses quinque ultimos, sublevatum: ulterius interrogatus, addidit, conamen se antrorsum inclinandi unquam per id tempus vasorum capitis plethoram intolerabilem, tanquam rumpendorum attulisse, vertigine, caligine et defectione animi succedentibus.

Æger in lecto, occipite alte levato, capite antrorsum leniter inclinato, et musculis mastoideis relaxatis ponebatur; hoc in statu omnino levatus. Cum irritatio nulla interna momenti, nec aliud ægri sanationi obviam ibat, nolo memorare seriem signorum quæ indies notavi, quippe quod inutile esset; igitur finem huic casui imponam, paucis de progressu notatu dignis memoratis.

Æger mane post operationem e lecto assurrexit, et per cubiculum ambulavit; quamvis hoc primo injussu fecit, postea tamen quoties opus erat, hæc venia dabatur: plerumque bene dormivit, parco cibo usus, et ad alvum maxima attentio fuit: parum loqui jubebatur. Die xxv^to Junii, ægro tussis molesta fuit, copiosa cum secretione muci e bronchiis &c. quem excernendi erat difficultas, aliquantum conservæ ribium dabatur. Die xxx^mo Junii, vulnus primo curabatur, et aspectum sanum assumebat, tumor paulatim subsidebat, et pulsatio obscure sensilis erat. Die vii^mo Julii, ligamenta parvis arteriis sejunge-

bantur. Die ix^{no} Julii, magna ligamenta incassum leniter velli; parvum cataplasma vulneri adhibebatur, ut ligamentorum liberatio acceleretur dummodo vas dissecuissent. Die xiv^{to} Julii, ligamentum superius sine vi removebam. Postridie, ligamentum inferius liberabatur, tumoris pulsatio vix sensibilis, et tumor ipse ad partem quartam pristinæ molis redigebatur. Die x^{mo} Augusti, tumoris pulsatio non amplius sensilis, et intumescentia collo æquabatur, cute quæ tegebat ex priore distensione flaccida et corrugata relicta, vulnus non longius quin conglutinaret. Carotis dextra ad sterni caput violenter pulsare conspiceretur. Die i^{mo} Septembris, colli vulnus omnino sanabatur, et æger solito valetudine fruebatur.

Exemplum sub cura Domini Cline.

A man about middle age, and of a strong make, was received into St Thomas's, in the early part of December 1808, for a carotid

aneurism. The tumor, which was about the size of an ordinary man's fist, had existed nearly two years, and enlarged daily; it was situated on the left side of the neck, a little below the angle of the jaw, pressed the larynx and œsophagus to the right side, and occasioned considerable difficulty of breathing and deglutition, with hoarseness and a troublesome cough. The patient complained of much pain in the tumor and left side of the head, but did not feel the distressing throbbing *within the head*, described in the case of Humphries: he enjoyed a good appetite, but slept little owing to the cough. Mr Cline on the 16th instant performed the operation of tying the carotid below the tumor, first recommended and performed by Mr Cooper. The artery was found with difficulty, being drawn some distance from its natural situation. The patient bore the operation well, and was carried to bed without exhibiting any material alteration. On the same evening, the cough being troublesome, five drops of

EXPLANATION OF PLATE THIRD.

a. Arteria Innominata.
b. Subclavian Artery.
c. Common Carotid.
d. The Aneurism.
e. Internal Carotid Artery.
f. External Carotid.
g. Trachea.
h. Epiglottis.
i. Os Hyoides.
k. Internal Jugular Vein.
l. Pars Vaga.

N. B.—Above c. the artery is opened to shew the firm clot.



C. Bell del.

E. Mitchell sculpt.

laudanum were given to the patient, and the dose repeated every hour through an unfortunate mistake. The patient was delirious next morning, his skin hot and dry, his face flushed, his eyes red and turgid, his tongue white and parched, and his pulse 120, hard, full and strong. At two P. M. Mr Cline saw him, and ordered the opiate to be discontinued. The patient continued to grow worse every hour, and died on the 19th, the third day from the operation; the relations conveyed away the body immediately, and would not hear of its being examined.

E Literis a Domino Astley Cooper die sexto Junii MDCCCIX *acceptis.*

WITH respect to the object of your present pursuit, you will ere this have received a copy of the Medico-Chirurgical Transactions of the London Society, which contains two cases of Carotid Aneurism, as correctly drawn up as my want of leisure will allow. Two

other cases have come to my knowledge, of which I shall inform you such particulars as I have been able to learn.

Mr Holloway, apothecary to the Universal Dispensary, Ratcliffe Highway, (successor to Mr Owen, whose name I have mentioned in my first case), was called to a man who was a bricklayer, and the subject of anasarca; he had been much in the habit of drinking spirits in his youth, and Mr Holloway was called to him on account of his dropsical state. Upon examining him, an aneurism was found on each side of the neck; that of the right side *nearly under the clavicle*, (Mr Holloway's expression); that on the left near the part where the carotids divide into external and internal: on the right side the disease had existed near eighteen months, whilst the left had been observed only six before his death: they produced violent pain in the head, accompanied by a *singing noise;* the pulsation in that on the right side was much stronger than in the left.

The man died of hydrops pectoris, as far as could be judged of by his symptoms, but his body was not examined.

The other case was shewn me by Dr de Lys, and I have had a drawing made of it, which I beg you will make what use of you choose.

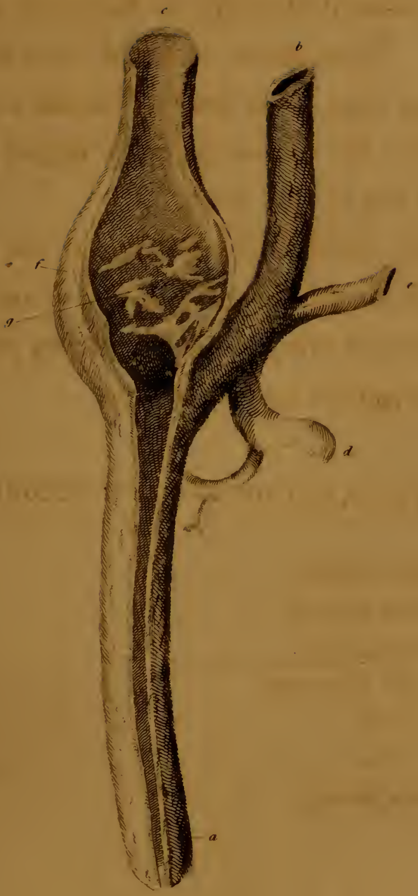
A man was brought for dissection at Guy's Hospital, whose history was not known, who was found to have an enlargement and thickening of the internal carotid artery on each side; the arteries had the feel of cartilaginous cysts, their coats being very much indurated. Upon removing the vessels from the body and slitting them open, the artery on the right side was found dilated with much addition to its coats, but was free from any appearance of ulceration within. On the other side, the artery was dilated into a pouch, thickened at least to double its natural density, and containing a portion of coagulable lymph, which, whilst one of its ends floated in the circulating blood, the

other adhered strongly to the coats of the artery. What effect followed the existence of these bags, I am entirely unable to state. I believe the disease generally begins at this part of the carotid artery.

I will send you the drawing in the course of a few days, and perhaps an account of an operation of tying the carotid artery performed twelve days ago in London.

EXPLANATION OF PLATE SECOND.

a. Common Carotid.
b. External Carotid.
c. Internal Carotid.
d. Superior Thyroideal.
e. Sublingual.
f. Aneurism.
g. Lymph adhering.


c
b
e
f
g
d
a

E Literis duodecimo Junii acceptis.

I HAVE sent you the drawing which I promised you, and it explains itself so clearly, that there is no necessity for my entering into its history, further than I have already done *.

The case to which I alluded when I last wrote you was this: My late apprentice Travers tied the carotid artery fifteen days ago, for a large *aneurism by anastamosis in the orbit.* It was found that the pressure of the finger upon the carotid artery suspended the pulsation of the tumor, and it was therefore judged proper to tie the vessel with the hope it might cure the disease. Two ligatures were put upon the artery, which was not divided, and no symptoms of disordered brain have succeeded: the pulsation in the tumor is much lessened, although not entirely stopped; the ligatures have not yet separated, but the

* Vide Tab. II.

wound looks well, and the woman's health is good.

E Lit. &c.

The person I mentioned to you in my last letter, as having the left carotid artery tied, discharged the ligatures ten days ago without hæmorrhage; nor did she suffer any symptom of disturbed cerebral functions: the wound is nearly closed*: two ligatures were applied without the division of the artery, which appears to me to answer as well as the division, and upon the following principle, &c.

Hìc mihi opportunitas est edendi literas Domini Travers comiter ad me scriptas de casu a se curato, et literis Domini Cooper memorato.

Of the following particulars make what mention you please in your Thesis. The disease was an aneurism deep-seated within the

* The tumor in the orbit is somewhat lessened.

Orbit of a middle-aged woman, which greatly protruded the globe of the eye. From its situation the extirpation of the diseased part was impracticable.

The operation was performed as follows: An incision of two inches and a half in length was commenced at the distance of one inch above the sternal extremity of the clavicle, and carried in an oblique direction along the anterior edge of the mastoid muscle. The fibres of the muscle being exposed, its edge was raised, and the sheath of the vessels cautiously pinched up and slit on the tracheal side, as we open the sac of a hernia. Through this slit, which was of very small extent, a curved-eyed probe carrying a stout round ligature was passed under the artery *alone*. The probe being cut away, the ligatures were drawn asunder as far as the denudation of the artery would admit, (a space not exceeding one-fourth of an inch), and tied. The section of the internal coat of the vessel was distinctly felt as the ligatures were tighten-

ed. The wound was lightly dressed with adhesive straps. The symptoms of irritation succeeding the operation were those commonly experienced on similar occasions, but milder than I expected. The pulse was at the highest (132) on the evening of the second day. The ligatures were left to themselves, and came away in the dressings on the 21st and 22d days. The woman sat up to her meals in the third week; walked two miles at a time in the fourth; and on the fifth resumed her domestic duties as usual.

Dominus A. Cooper per nuperas literas mihi benigne libertatem concessit hasce suas observationes edendi, ante mecum literis communicatas, de recenti Aneurismatis Arteriæ Subclaviæ gravi exemplo.

WITH respect to the subclavian aneurism, you are most welcome to mention it.

In the case of *Subclavian Aneurism,* I tried to tie the artery, but could not succeed; nor indeed was I very sanguine of success, as the tumor was of great magnitude, and reached from the clavicle to the shoulder-joint, thrusting the clavicle nearly half way up the neck, from which situation it could not be drawn: however, as the man had no other chance of surviving the disease, I thought it my duty to make the trial. I began my incision on the outer part of the sterno-mastoid muscle, and extended it about three inches outwards: the external jugular vein occupied the middle of the incision, and I left it without division: the lower part of the axillary plexus was laid bare, and the finger being passed down into the wound, the artery could be felt pulsating under the clavicle, but at so great a depth that I could not convey a ligature under it, and the space of artery between the Scaleni muscles and the aneurism was too short (not more than an

inch and a half) to allow of the artery being separated from the surrounding parts.

The man died in ten days after this; and upon inspecting the parts, I found the aneurism situated under the pectoralis major, reaching to the clavicle, about two inches of the second and third ribs absorbed, and the left lung adherent to the chest and to the aneurismal clot.

The result of this operation then is, that the subclavian aneurism, like the carotid, must be operated on before it becomes of great magnitude, otherwise the altered position of the shoulder, and the destructive effects of the aneurism on the chest, will render any attempt unavailing.

In the early stage of this disease, it is my intention to take the first opportunity of performing the operation.

Argumento nunc tandem absoluto, nequeo non confiteri quantum debeo gratiarum eximiis Domino Joanni Bell et Domino Carolo Bell præ illis tabulis ornatis quibus me maxima benignitate donârunt, istam *præparationem* repræsentantibus, quam summa urbanitate Dominus A. Cooper ad id commodavit.

Neque me deceat non grato animo agnovisse Professoris Thomson erga me comitatem, qui mihi usuram præbuerit illius utilissimi operis Professoris Scarpa de Aneurismate, cujus id *unicum exemplar* hìc loci nunc extat, et qui magna me amicitia dignatus est.

FINIS.